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READINGS IN PHILOSOPHY

READINGS IN PHILOSOPHY

COMPILED BY

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IN THE OHIO STATE UNIVERSITY

SECOND EDITION

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PREFACE

This volume is intended primarily as a supplement to Professor Joseph A. Leighton's *The Field of Philosophy*. But since that work covers quite completely the entire territory of the subject, this volume in presenting the chief sources which Professor Leighton evidently had in mind becomes a fairly representative collection of the classic passages of philosophic literature, and may be of interest to some readers as such a collection.

The necessity for readings supplementary to the other text and the difficulty of providing a reference library with sufficiently numerous copies for large classes afforded the motives for such a compilation. There are, of course, standard source books in philosophy in existence; but none of them quite met the situation. Doubtless the ideal plan would be to have the student turn to the complete works and see the passages in their proper settings. This would in many instances stimulate curiosity and lead to further reading of passages of the student's own selection. It would also make possible the interpretation of important conceptions in the light of parallel references. But this does not prove feasible in actual practice. Hence, this volume is offered as something of a substitute.

In selecting the passages the effort has been simply to illustrate by means of sources the essential points of Professor Leighton's discussion. In many instances other passages might have been chosen. Limitation of space and scope made impossible any attempt to present an exhaustive treatment of any topic.

Professor Leighton has reviewed the work and given it his approval in general. I am indebted to him for suggestions in many places. But I assume responsibility for the choice of most of the selections.

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I am indebted to Professor A. R. Chandler for suggestions and assistance, especially in connection with several original translations, and also to a number of other teachers of philosophy who have made useful suggestions regarding the construction of the book.

My obligations to the publishers and holders of copyrights who have generously allowed me to reproduce material are very great. Specific acknowledgments are made in connection with the passages printed.

In making translations the student was kept in mind rather than the expert critic. For this reason a somewhat well-established philosophical vocabulary has been avoided because of its unfamiliarity to beginners. The translations have been undertaken partly for exercise, partly as the easiest way out of certain difficulties. Of each of them the translator would say, in the words of another and better-known philosopher, "An ill-favored thing, sir, but mine own."

ALBERT E. AVEY

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PART I

THE CHIEF PROBLEMS AND STANDPOINTS OF GREEK AND MEDIEVAL PHILOSOPHY

CHAPTER I

PHILOSOPHY, ITS MEANING AND SCOPE

1. The Philosopher the Spectator of All Time and All Existence

In the following passage from Plato's *Dialogues*, the famous Athenian philosopher, Socrates, is represented in conversation with Glaucon, a young friend of his, when the discussion turns to the question of the qualifications necessary for a philosopher. The longer speeches are from Socrates; the shorter from Glaucon.[1]

The genuine lover of knowledge must, from his youth up, strive intensely after all truth.

Yes, he must thoroughly.

Well, but we cannot doubt that when a person's desires set strongly in one direction, they run with corresponding feebleness in every other channel, like a stream whose waters have been diverted into another bed.

Undoubtedly they do.

So that when the current has set towards science, and all its branches, a man's desires will, I fancy, hover around pleasures that are purely mental, abandoning those in

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[1] Plato, *Republic*, Book VI, 485c-487a; translation of Davies and Vaughan, published by the Macmillan Company (1916); reprinted by permission.

Plato (427–347 B.C.) was a member of a wealthy and distinguished family in Athens. He was a disciple of Socrates, a student of earlier philosophies, and the founder of the Academy at Athens. He was one of the most brilliant writers Greece produced, and one of the most influential thinkers of history. His important works are the justly famous *Dialogues*.

which the body is instrumental,—provided that the man's love of wisdom is real, not artificial.

It cannot be otherwise.

Again, such a person will be temperate and thoroughly uncovetous: for he is the last person in the world to value those objects which make men anxious for money at any cost.

True.

Once more, there is another point which you ought to take into consideration, when you are endeavoring to distinguish a philosophic from an unphilosophic character.

What is that?

You must take care not to overlook any taint of meanness. For surely little-mindedness thwarts above everything the soul that is destined ever to aspire to grasp truth, both divine and human, in its integrity and universality.

That is most true.

And do you think that a spirit full of lofty thoughts, and privileged to contemplate all time, and all existence, can possibly attach any great importance to this life?

No, it is impossible.

Then such a person will not regard death as a formidable thing, will he?

Certainly not.

So that a mean and cowardly character can have no part, as it seems, in true philosophy.

I think it cannot.

What then? Can the man whose mind is well-regulated, and free from covetousness, meanness, pretentiousness, and cowardice, be by any possibility hard to deal with or unjust?

No; it is impossible.

Therefore, when you are noticing the indications of a philosophical or unphilosophical temper, you must also

observe in early youth whether the mind is just and gentle, or unsociable and fierce.

Quite so.

There is still another point, which I think you must certainly not omit.

What is that?

Whether the mind in question is quick or slow at learning. For you can never expect a person to take a decent delight in an occupation which he goes through with pain, and in which he makes small progress with great exertion.

No, it would be impossible.

Again, if he can remember nothing of what he has learned, can he fail, being thus full of forgetfulness, to be void of knowledge?

No he cannot.

Then, will not his fruitless toil, think you, compel him at last to hate both himself and such employment?

Doubtless it will.

Let us never, then, admit a forgetful mind into the ranks of those that are counted worthy of philosophy; but let us look out for a good memory as a requisite for such admission.

Yes, by all means.

Again, we should certainly say that the tendency of an unrefined and awkward nature is wholly towards disproportion.

Certainly.

And do you think that truth is akin to disproportion, or to proportion?

To proportion.

In addition, then, to our other acquirements, let us search for a mind naturally well-proportioned and graceful, whose native instincts will permit it to be easily led to apprehend the Forms of things as they really are.

By all means.

What then? Do you think that the qualities which we have enumerated are in any way unnecessary or inconsistent with one another, provided the soul is to attain unto full and satisfactory possession of real existence?

On the contrary, they are most strictly necessary.

Then can you find any fault with an employment which requires of a man who would pursue it satisfactorily, that nature shall have given him a retentive memory, and made him quick at learning, lofty-minded and graceful, the friend and brother of truth, justice, fortitude, and temperance?

No, he replied; the very Genius of criticism could find no fault with such an employment.

2. The Degrees of Knowledge

In the following passage Plato represents Socrates as discussing the degrees of knowledge from the lowest, the most uncertain opinion received at second hand, up to the highest or presuppositionless knowledge.[2]

Suppose you take a line divided into two unequal parts, —one to represent the visible class of objects, the other the intellectual,—and divide each part again into two segments on the same scale. Then, if you make the lengths of the segments represent degrees of distinctness or indistinctness, one of the two segments on the part which stands for the visible world will present all images:—meaning by images, first of all, shadows; and, in the next place, reflections in water, and in close-grained, smooth, bright substances, and everything of the kind, if you understand me.

Yes, I do understand.

Let the other segment stand for the real objects corresponding to these images,—namely, the animals about us, and the whole world of nature and of art.

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[2] *Ibid.*, Book VI, 509e-511e.

Very good.

Would you also consent to say that, with reference to this class, there is, in point of truth and untruthfulness, the same distinction between the copy and the original, that there is between what is matter of opinion and what is matter of knowledge?

Certainly I should.

Then let us proceed to consider how we must divide that part of the whole line which represents the intellectual world.

How must we do it?

Thus: one segment of it will represent what the soul is compelled to investigate by the aid of the segments of the other part, which it employs as images, starting from hypotheses, and traveling not to a first principle, but to a conclusion. The other segment will represent the objects of the soul, as it makes its way from an hypothesis to a first principle which is not hypothetical, unaided by those images which the former division employs, and shaping its journey by the sole help of real essential forms.

I have not understood your description so well as I could wish.

Then we will try again. You will understand me more easily when I have made some previous observations. I think you know that the students of subjects like geometry and calculation, assume by way of materials, in each investigation, all odd and even numbers, figures, three kinds of angles and other similar data. These things they are supposed to know, and having adopted them as hypotheses, they decline to give any account of them, either to themselves or to others, on the assumption that they are self-evident; and, making these their starting point, they proceed to travel through the remainder of the subject, and arrive at last, with perfect unanimity, at that which they have proposed as the object of investigation.

I am perfectly aware of the fact, he replied.

Then you also know that they summon to their aid visible forms, and discourse about them, though their thoughts are busy not with these forms, but with their originals, and though they discourse not with a view to the particular square and diameter which they draw, but with a view to the absolute square and the absolute diameter and so on. For while they employ by way of images those figures and diagrams aforesaid, which again have their shadows and images in water, they are really endeavoring to behold those abstractions which a person can only see with the eye of thought.

True.

This, then, was the class of things which I called intellectual; but I said that the soul is constrained to employ hypotheses while engaged in the investigation of them,—not traveling to a first principle (because it is unable to step out of, and mount above, its hypotheses) but using, as images, just the copies that are presented by things below,—which copies, as compared with the originals, are vulgarly esteemed distinct and valued accordingly.

I understand you to be speaking of the subject-matter of the various branches of geometry and the kindred arts.

Again, by the second segment of the intellectual world understand me to mean all that the mere reasoning process apprehends by the force of hypotheses not as first principles, but as genuine hypotheses, that is to say, as stepping-stones and impulses, whereby it may force its way up to something that is not hypothetical, and arrive at the first principle of everything, and seize it in its grasp; which done, it turns round, and takes hold of that which takes hold of this first principle, till at last it comes down to a conclusion, calling in the aid of no sensible object whatever, but simply employing abstract, self-subsisting forms, and terminating in the same.

I do not understand you so well as I could wish, for I believe you to be describing an arduous task; but at any rate I understand that you wish to declare distinctly, that the field of real existence and pure intellect, as contemplated by the science of dialectic, is more certain than the field investigated by what are called the arts, in which hypotheses constitute first principles, which the students are compelled, it is true, to contemplate with the mind and not with the senses; but at the same time, as they do not come back, in the course of inquiry, to a first principle, but push on from hypothetical premises, you think that they do not exercise pure reason on the questions that engage them, although taken in connection with a first principle these questions come within the domain of the pure reason. And I believe you apply the term understanding, not pure reason, to the mental habit of such people as geometricians,—regarding understanding as something intermediate between opinion and pure reason.

You have taken in my meaning most satisfactorily; and I beg you will accept these four mental states, as corresponding to the four segments,—namely pure reason corresponding to the highest, understanding to the second, belief to the third, and conjecture to the last; and pray arrange them in gradation, and believe them to partake of distinctness in a degree corresponding to the truth of their respective objects.

I understand you, said he. I quite agree with you, and will arrange them as you desire.

3. The Relation of Philosophy to Science

A classic discussion of this topic is to be found in the following selection from the writings of the modern philosopher Herbert Spencer. After reviewing the fundamental conceptions of philosophy in the ancient and modern worlds, he says:[3]

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[3] Spencer, H., *First Principles,* Section 37; reprinted from the 6th

Sec. 37. Thus every one of these conceptions implies belief in a possible way of knowing things more completely than they are known through simple experiences, mechanically accumulated in memory or heaped up in cyclopaedias. Though in the extent of the sphere which they have supposed Philosophy to fill, men have differed and still differ very widely; yet there is a real if unavowed agreement among them in signifying by this title a knowledge which transcends ordinary knowledge. That which remains as the common element in these conceptions of Philosophy, after the elimination of their discordant elements, is—*knowledge of the highest degree of generality.* We see this tacitly asserted by the simultaneous inclusion of God, Nature and Man within its scope; or, still more distinctly by the division of Philosophy as a whole, into Theological, Physical, Ethical, &c. For that which characterizes the genus of which these are species, must be something more general than that which distinguishes any one species.

What must be the shape here given to this conception? Though persistently conscious of a Power manifested to us, we have abandoned as futile the attempt to learn anything respecting the nature of that Power, and so have shut out Philosophy from much of the domain supposed to belong to it. The domain left is that occupied by Science. Science concerns itself with the co-existences and sequences among phenomena; grouping these at first into generalizations of a simple or low order, and rising gradually to

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Herbert Spencer (1820–1903) was an English civil engineer, journalist, and independent student of the sciences. He is known chiefly for his essays and his system of Synthetic Philosophy which aimed to present a philosophy based upon science, in particular the theory of evolution. The basic principles of this philosophy were set forth in *First Principles,* first published in 1860–1862, at London.

higher and more extended generalizations. But if so, where remains any subject-matter for Philosophy?

The reply is—Philosophy may still properly be the title retained for knowledge of the highest generality. Science means merely the family of the Sciences—stands for nothing more than the sum of knowledge formed of their contributions; and ignores the knowledge constituted by the *fusion* of these contributions into a whole. As usage has defined it, Science consists of truths existing more or less separated and does not recognize these truths as entirely integrated. An illustration will make the difference clear.

If we ascribe the flow of a river to the same force which causes the fall of a stone, we make a statement that belongs to a certain division of Science. If, to explain how gravitation produces this movement in a direction almost horizontal, we cite the law that fluids subject to mechanical forces exert re-active forces which are equal in all directions, we formulate a wider truth, containing the scientific interpretations of many other phenomena; as those presented by the fountain, the hydraulic press, the steam-engine, the air-pump. And when this proposition, extending only to the dynamics of fluids, is merged in a proposition of general dynamics, comprehending the laws of movement of solids as well as of fluids, there is reached a yet higher truth; but still a truth that comes wholly within the realm of Science. Again looking around at Birds and Mammals, suppose we say that air-breathing animals are hot-blooded; and that then, remembering how Reptiles, which also breathe air, are not much warmer than their media, we say, more truly, that animals (bulks being equal) have temperatures proportionate to the quantities of air they breathe; and that then, calling to mind certain large fish as the tunny which maintain a heat considerably above that of the water they swim in, we further correct the generalization by saying that the temperature varies

as the rate of oxygenation of the blood; and that then, modifying the statement to meet other criticisms, we finally assert the relation to be between the amount of heat and the amount of molecular change—supposing we do all this, we state scientific truths that are successively wider and more complete, but truths which, to the last, remain purely scientific. Once more if, guided by mercantile experiences, we reach the conclusions that prices rise when the demand exceeds the supply; that commodities flow from places where they are abundant to places where they are scarce; that the industries of different localities are determined in their kinds mainly by the facilities which the localities afford for them; and if, studying these generalizations of political economy, we trace them all to the truth that each man seeks satisfaction for his desires in ways costing the smallest efforts—such social phenomena being *resultants* of individual actions so guided; we are still dealing with the propositions of Science only.

How, then, is Philosophy constituted? It is constituted by carrying a stage farther the process indicated. So long as these truths are known only apart and regarded as independent, even the most general of them cannot without laxity of speech be called philosophical. But when, having been severally reduced to a mechanical axiom, a principle of molecular physics, and a law of social action, they are contemplated together as corollaries of some ultimate truth, then we rise to the kind of knowledge which constitutes Philosophy proper.

The truths of Philosophy thus bear the same relation to the highest scientific truths, that each of these bears to lower scientific truths. As each widest generalization of Science comprehends and consolidates the narrower generalizations of its own division; so the generalizations of Philosophy comprehend and consolidate the widest generalizations of Science. It is therefore a knowledge the

extreme opposite in kind to that which experience first accumulates. It is the final product of that process which begins with a mere colligation of crude observations, goes on establishing propositions that are broader and more separated from particular cases, and ends in universal propositions. Or to bring the definition to its simplest and clearest form:—Knowledge of the lowest kind is *un-unified* knowledge; Science is *partially-unified* knowledge; Philosophy is *completely-unified* knowledge.

4. The Difference between Philosophy and Religion

The difference between the spirit and intent of philosophy and religion are dwelt upon in the following passages from the *Theologico-political Tractate* of Baruch Spinoza:[4]

The purpose of Scripture is only to teach obedience. This no one can deny. Who does not see that either Testament is nothing but a training in obedience, and that they intend nothing other than that men obey with true sincerity? For, Moses strove not to convince the Israelites by reason, but to bind them by a covenant, oaths, and the expectation of favors; then he held the people subject to law through threats of punishment, and encouraged them to the same with rewards; all which measures are to the end not of knowledge but of obedience only. Evangelical teaching also contains nothing except simple faith; namely, to trust in God and to revere him, or—which is the same thing—to obey God. I have no need then to multiply texts of Scripture which commend obedience, a great number of which are to be found in each Testament, to prove a thing

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[4] Spinoza, B., *Theologico-political Tractate*, from Ch. xiv; translated from the text of Van Vloten and Land (The Hague, 1914).

Baruch Spinoza (1632–1677) was a Jew of Portuguese descent who lived in Holland. He was an independent thinker and was expelled from his community on this account. He made his living as a grinder of optical lenses. His *Theologico-political Tractate* was first published anonymously in 1670 at Amsterdam.

which is most manifest. Scripture itself also teaches in many places with utmost clearness what one must do to please God: namely, that the whole law consists in this alone, in love toward one's neighbor. Wherefore, no one can deny that he who in accordance with the command of God loves his neighbor as himself is really obedient and blessed according to the law, and that he who on the contrary hates or neglects him is rebellious and obstinate. . . .

The aim of philosophy is nothing but truth; that of faith, as we have abundantly shown, nothing but obedience and piety. The foundations of philosophy are general principles, which must be sought from nature alone; those of faith, however, are history and language, and should be sought in Scripture and revelation alone. . . . Faith therefore grants the greatest liberty to every one to study philosophy; so that one may hold with impunity whatever view he wishes regarding anything. It condemns as heretics and schismatics only those who teach views leading to arrogance, hatred, contentiousness and anger; and on the contrary holds as faithful only those who teach justice and charity with all the might and power of their reason.

5. The Similarity between Philosophy and Religion

The similarity in spirit and aim of philosophy and religion is emphasized in the following passage from Hegel's *Lectures on the Philosophy of Religion:* [5]

When we say that philosophy takes religion as one of the objects of its study the two seem placed in a relation of

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[5] Hegel, G. W. F., *Lectures on the Philosophy of Religion,* pp. 5–7; translated from the edition of 1832.

Georg Wilhelm Friedrich Hegel (1770–1831) was a teacher in German schools and Professor of Philosophy at Jena, Heidelberg, and Berlin. He was one of the most influential of the German teachers of philosophy, of the system of Absolute Idealism. His *Philosophy of Religion* was first published at Berlin, by his editors, in 1832, from notes he had left.

distinctness from each other; they stand opposed the one to the other. In fact, however, it must be said that the content, the motive, and the interest, of philosophy and theology are identical.

The object of religion, as of philosophy, is the eternal truth in its objectivity; God, nothing but God, and the interpretation of God. Philosophy merely interprets itself when it interprets religion; and by interpreting itself it interprets religion. It is, like religion, an occupation with this object; it is the thinking spirit which pervades this object—the truth,—the inspiration and enjoyment, the correction and purification of the subjective self-consciousness in and through this interest.

Thus philosophy and religion merge. In fact philosophy itself is worship. But each is worship in its own way. It is in this peculiarity of the manner of concernment with God that they differ from each other. There lie the difficulties which appear so great that they seem to make it impossible for philosophy to be one with religion. Thence come theology's apprehensions regarding philosophy, the mutually hostile attitude of religion and philosophy. According to this hostile attitude (in so far as theology assumes it) philosophy appears to have a destructive, disturbing, desecrating effect upon the content of religion. This is the ancient opposition or contradiction which stands before us as generally recognized, and has more weight than the just asserted unity of religion and philosophy. The time seems now to have come when philosophy may concern itself with the consideration of religion in a more unprejudiced, a happier, and more wholesome manner.

The union of philosophy and theology is not new. It occurred in the case of those theologians who are called the Church Fathers, even the most eminent of them. They had studied deeply in the neo-platonic, neo-pythagorean, and neo-aristotelian philosophy, and went over to Chris-

tianity partly because of philosophy itself; in part they applied this depth of spirit which they had gained through the study of philosophy to the doctrines of Christianity. To this philosophic training the Christian Church owes the first beginnings of a content to Christian doctrine, which could not yet be called formal "dogmatics." To be sure it is often said that it has been a disadvantage for Christianity to have acquired a definite content, a "dogmatic." Later we shall have something to say about the relation of a system of doctrines to religious feeling, to the thrill of pure devotion.

This union of theology and philosophy we see also in the Middle Ages. Scholastic philosophy is one and the same with theology. Philosophy is theology, and theology philosophy. So little was it believed that conceptual knowledge was detrimental to theology that it was held to be essential to theology itself. Those great men—Anselm, and Abelard—developed theology on the basis of philosophy.

CHAPTER II

PRIMITIVE THOUGHT

1. The Attributes of the Soul in Primitive Thought

The [1] soul is visible or invisible, generally the latter. As we have seen, it is invisible precisely because it is seen with the brain, not with the eye. In some cases we find that spirits are not feared in the daytime because they are then invisible, but they are feared at night. Night is the time when souls are seen; they are not the "ghosts" of fancy, produced by the absence of light, nor are they the images of dreams. The uncultured mind generally does its thinking when day is over. As the savage sits by the camp-fire before going to sleep, the images of his experiences move quickly through his brain; that is to say, he sees a panorama of souls of men and things. The visual illusions arising from the contemplation of fire-light doubtless give rise to the representation of the soul as a spark or a flame; and the shapes seen in fire-light may at times be identified with souls.

The substance of the soul is attenuated reality. The visual image, which is a replica of the percept, continually takes on the characteristics of the object as they vary with circumstances. The Indians of Canada believe that souls bleed when stabbed with a knife. In the Middle Ages

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1 Crawley, A. E., *The Idea of the Soul*, pp. 208–214 (A. and C. Black, 1909); reprinted by permission of the publishers and Mr. Crawley.

Mr. Crawley (1869–——) is an English scholar and writer on anthropology.

not only were bodies burned alive on earth, but souls were burned in hell. The Kafir gives his child an emetic to purge him of the Christianity he has learned at the Mission School. In China, Brazil, and Australia, mutilation of the body has a corresponding effect on the soul. If, therefore, a dead man is hamstrung or has his thumbs cut off, his soul will be harmless. In savage thought acquired characteristics are inherited by the disembodied soul. Souls, as in Fiji story, are subject to decomposition. Throughout history the idea of the soul has kept more or less, even after language has made it an abstraction, to a material substantiality. The mind cannot think a pure abstraction or an immaterial substance.

The materiality of the soul, therefore, is not the result of any materialistic doctrine, neither is its ethereality the result of idealism. Early men have no metaphysical dogmas about matter and energy, matter and spirit. To them all substance is the same, neither material nor immaterial, but neutral. Their attitude is unconsciously scientific.

The attenuated substantiality of the soul is, of course, due to the fact that it is a memory image. This possesses volume, yet in a less degree than the percept. The filmy or vaporous quality of the soul is therefore due, not to its being the breath or the life, but to the fact that the memory image is fainter and less solid than the object. To this should be added the chief characteristic of sight in contrast to touch, since the memory-image is mainly visual. The eye to a great extent lacks the experience of resistance, "there being nothing to constitute a resisting obstacle to the rotation of the ball, except its own very small inertia. Hence the eye with all its wide range and close-searching capabilities cannot be said to contribute to the fundamental consciousness of the object universe, the feeling of resistance." The same characteristic belongs to hearing.

Which has the higher "reality," the body or the soul?

Here again the savage does not dogmatise; all experience is real, though it may differ in degree. Death proves that the soul is more real, since it still exists in the memory of others when the body has passed away. It is also more real, because it tends to be more constant than the percept. The real person is uncertain in his movements and unreliable in his acts; but the memory-image of the person is always more or less generalized by repetition. Along this line are developed at a later stage the ideas of the formal cause of a thing and of the essence, or the thing in itself. It is of interest to note with reference to the repeating function of the brain, that repetition intensifies and confirms reality. On the other hand, the sense of touch turns the scale in favor of the body. For common sense the great test of reality is resistance; touch is the final criterion of the real presence. "Handle me and see; for a spirit hath not flesh and bones, as ye see me have."

We may here refer to the current doctrine that early man confused subjective and objective reality. Sensations are referred to an external object. When the object is absent, and the same nervous center is stimulated, does the mind refer the stimulus to the object? In the abnormal processes of hallucination and the projection of after images this is temporarily the case. The projection of memory-images is equally abnormal. Such experiences might produce the idea of the bilocation of objects, but not the idea of the soul. In any case, however, we must confine ourselves to normal experience. Is, then, the memory-image so intense in the primitive mind as to be mistaken for the percept? This is extremely improbable, as early man depended for his very existence on the power of discriminating mental and objective reality. Moreover, we continually find cases where, though he ascribes reality to mental experience and to dream images, yet the reality is particularly noted as different. Kafir boys and girls "dis-

tinguish their dreams from their waking experiences, though they think the dreams were real in a certain sense.'' This distinction is psychologically sound.

Other characteristics of the soul which are derived from the characteristics of the memory-image are rapidity; evanescence, permanence leading to immortality, changelessness, and separability.

The soul is a light, fluttering, or gliding thing, quick to come and quick to go, hard to catch and hard to detain. Hence it is symbolized by means of birds, butterflies, moths, flies, lizards, and snakes, light or fluttering or rapidly moving creatures. These characteristics are those of the image as it glides along the stream of consciousness. Only concentrated attention can check its movement.

The soul of a man exists in a mental world, the brains of other men, until and even after he dies. As opposed to the changing movements of the owner, it is more or less stationary and changeless. It is a standard of reference. As has been suggested, it is automatically generalized by repetition.

The germ of its immortality is the fact that it exists in the brains of others. A man dies, but his image remains. The fact of death does not necessarily alter the character of the memory-image, though such alteration is found; the permanence of the soul depends on the length of the memory of the survivors, on the affection the dead man inspired, or the strength of his personality. Remarkable characters develop into ''ancestors'' and ''heroes.'' Their souls, regarded as connected with their remains, and then with their resting-places, receive artificial support in the way of food and drink, the soul of which they absorb, visible replicas and fetish-like symbols. In these methods of embodying a memory there is the beginning of a cult, of idols, shrines, and temples.

The savage has no idea of absolute immortality. The

soul itself dies; its existence, that is, depends on the memory of others. But neither has he any idea of absolute death of the organism. He avoids reflection on so disagreeable a subject, and never realizes the fact of his own annihilation. Death for him is rarely due to natural causes; if it were not for magic, as producing disease and death, and for violence, man would live for an indefinite time. There is a flavor of scientific truth about this view.

The soul is, by the very fact of its origin, separable from the personality. Its connection with the latter is likely to be mysterious for the naïve consciousness. In the presence of the person it coalesces with him or disappears; it reappears in his absence, or when present, if the subject closes his eyes he sees the soul, if he opens them he sees the man.

There are many results of this separability. The phenomena of sleep and dream, disease and death, constitute an Odyssey of the soul. This has often been described in its main features. Some less hackneyed details of adventure may here be noted in connection with the psychology of the ideas of separation and connection.

These ideas are mainly derived from the relation of the memory-image to the percept. In the early stages it requires some effort to keep the image separate from the reality when the percept is available. Accordingly peoples like the Australians cannot "distinguish between body and soul." With the Kafirs body and soul are closely connected, "if not identical." The Bantu says "my body and soul are one; my soul is myself." . . .

Early thought, again, is more apt to connect than to separate. In reference to the primitive fear of thought, the probability may be noted that the fact of the object living in the brain of the subject is itself an uncanny experience. The mind is uneasy about such duality of existence. Conversely, when there is especial reason for fearing

the object, the mind is afraid lest the image should become real, lest it should bring the object into sight, or be visualized into reality, in other words, lest it should be exchanged for the percept.

The theory of omens is connected with this principle. When a man has in his mind a picture of what he is about to do, any appearance that bears an analogy to his intended action is regarded as a possibility of realization. If it is in harmony with the intention, it is a good omen, a help to satisfactory realization; if it is antagonistic, it is evil and may frustrate the contemplated issue.

The tendency to connect is shown in language, in thought, and in a multitude of early habits. Thus fragments of a man's personality, such as hair or nail-clippings, or clothes, retain a close connection, due originally not to any physical theory as might be inferred from sympathetic magic, nor to any notion of a "force" or "influence" pervading such parts of the whole, but simply to the comprehensiveness of the percept and the image. The mind is loath to divide either. Apparently, however, it is also prone to divide them. When analysis of the percept once begins, it goes far, and we have to deal with what amounts to a plurality of souls. The fact is that the original comprehensive totality, though desired by the mind, is more easily referred to by parts or symbols or tags.

An instructive case of misconception in such questions is to be found in what is reported of the Chinese. With this people, so profoundly religious, the value of the soul as compared with the body is said to be "almost entirely ignored." The explanation of this is that the Chinese mind identifies soul and personality, memory-image and percept, in a very practical and scientific way. To the Chinese the man is the soul, and the soul is the man. The conviction that the soul has the shape of the body is one which calls up the body immediately before their eyes

whenever they think of the soul. They will have no more dualism than the facts of nature demand.

2. Homeopathic Magic

One of the most classic discussions of primitive magic is to be found in the following passages from Frazer's *Golden Bough:*[2]

Perhaps the most familiar application of the principle that like produces like is the attempt which has been made by many peoples in many ages to injure or destroy an enemy by injuring or destroying an image of him, in the belief that, just as the image suffers, so does the man, and that when it perishes he must die. A few instances out of many may be given to prove at once the wide diffusion of the practice over the world and its remarkable persistence through the ages. For thousands of years ago it was known to the sorcerers of ancient India, Babylon, and Egypt, as well as of Greece and Rome, and at this day it is still resorted to by cunning and malignant savages in Australia, Africa, and Scotland. Thus the North American Indians, we are told, believe that by drawing the figure of a person in sand, ashes, or clay, or by considering any object as his body, and then pricking it with a sharp stick or doing it any other injury, they inflict a corresponding injury on the person represented. For example, when an Ojebway Indian desires to work evil on any one, he makes a little wooden image of his enemy and runs a needle into its head or heart, or he shoots an arrow into it, believing that wherever the needle pierces or the arrow strikes the image, his foe will the same instant be seized with a sharp pain in the corresponding part of his body; but if he in-

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2 Frazer, J. G., *The Golden Bough*, Part I, *The Magic Art*, 3d edition, Vol. I, pp. 55–60; reprinted by permission of Macmillan and Company, Ltd., London.

Sir J. G. Frazer (1854–——), Fellow of Trinity College, Cambridge, is known especially for his studies in primitive beliefs.

tends to kill the person outright, he burns or buries the puppet, uttering certain magic words as he does so. So when a Cora Indian of Mexico wishes to kill a man, he makes a figure of him out of burnt clay, strips of cloth, and so forth, and then, muttering incantations, runs thorns through the head or stomach of the figure to make his victim suffer correspondingly. Sometimes the Cora Indian makes a more beneficent use of this sort of homeopathic magic. When he wishes to multiply his flocks or herds, he models a figure of the animal he wants in wax or clay, or carves it from tuff, and deposits it in a cave of the mountains; for these Indians believe that the mountains are masters of all riches, including cattle and sheep. For every cow, deer, dog or hen he wants, the Indian has to sacrifice a corresponding image of the creature. This may help us to understand the meaning of the figures of cattle, deer, horses, and pigs which were dedicated to Diana at Nemi. They may have been the offerings of farmers or huntsmen who hoped thereby to multiply the cattle or the game. Similarly when the Todas of Southern India desire to obtain more buffaloes, they offer silver images of these animals in the temples. The Peruvian Indians molded images of fat mixed with grain to imitate the persons whom they disliked or feared, and then burned the effigy on the road where the intended victim was to pass. This they called burning his soul. But they drew a delicate distinction between the kinds of materials to be used in the manufacture of these images, according as the victim was an Indian or a Viracocha, that is, a Spaniard. To kill an Indian they employed maize and the fat of a llama, to kill a Spaniard they used wheat and the fat of a pig, because Viracochas did not eat llamas and preferred wheat to maize.

A Malay charm of the same sort is as follows: Take parings of nails, hair, eyebrows, spittle, and so forth of

your intended victim, enough to represent every part of his person, then make them up into his likeness with wax from a deserted bees' comb. Scorch the figure slowly by holding it over a lamp every night for seven nights, and say:

It is not wax that I am scorching,
It is the liver, heart, and spleen of So-and-so that I scorch.

After the seventh time burn the figure, and your victim will die. This charm obviously combines the principles of homeopathic and contagious magic; since the image which is made in the likeness of an enemy contains things which once were in contact with him, namely, his nails, hair, and spittle. Another form of the Malay charm, which resembles the Ojebway practice still more closely, is to make a corpse of wax from an empty bees' comb and of the length of a footstep; then pierce the eye of the image, and your enemy is blind; pierce the stomach, and he is sick; pierce the head, and his head aches; pierce the breast, and his breast will suffer. If you would kill him outright, transfix the image from the head downwards; enshroud it as you would a corpse; pray over it as if you were praying over the dead; then bury it in the middle of a path where your victim will be sure to step over it. In order that his blood may not be on your head, you should say:

It is not I who am burying him,
It is Gabriel who is burying him.

Thus the guilt of the murder will be laid on the shoulders of the archangel Gabriel, who is a great deal better able to bear it than you are. In eastern Java an enemy may be killed by means of a likeness of him drawn on a piece of paper, which is then incensed or buried in the ground. Among the Minangkabauers of Sumatra a man who is tormented by the passion of hate or of unrequited love

will call in the help of a wizard in order to cause the object of his hate or love to suffer from a dangerous ulcer known as *tinggam*. After giving the wizard the necessary instructions as to the name, bodily form, dwelling, and family of the person in question, he makes a puppet which is supposed to resemble his intended victim; and repairs with it to a wood, where he hangs the image on a tree that stands quite by itself. Muttering a spell, he then drives an instrument through the navel of the puppet into the tree, till the sap of the tree oozes through the hole thus made. The instrument which inflicts the wound bears the same name (*tinggam*) as the ulcer which is to be raised on the body of the victim, and the oozing sap is believed to be his or her life-spirit. Soon afterwards the person against whom the charm is directed begins to suffer from an ulcer, which grows worse and worse till he dies, unless a friend can procure a piece of the wood of the tree to which the image is attached.

The sorcerers of Mabuiag or Jervis Island, in Torres Straits, kept an assortment of effigies in stock ready to be operated on at the requirement of a customer. Some of the figures were of stone; these were employed when short work was to be made of a man or woman. Others were wooden; these gave the unhappy victim a little more rope, only, however, to terminate his prolonged sufferings by a painful death. The mode of operation in the latter case was to put poison, by means of a magical implement, into a wooden image, to which the name of the intended victim had been given. Next day the person aimed at would feel chilly, then waste away and die, unless the same wizard who had wrought the charm would consent to undo it. If the sorcerer pulled off an arm or leg of the image, the human victim felt pain in the corresponding limb of his body; but if the sorcerer restored the severed arm or leg to the figure, the man recovered. Another mode of compassing

a man's death in Torres Straits was to prick a wax effigy of him or her with the spine of a sting-ray; so when the man whose name had been given to the waxen image next went afishing on the reef a sting-ray would sting him in the exact part of his body where the waxen image had been pierced. Or the sorcerer might hang the effigy on the bough of a tree, and as it swayed to and fro in the wind the person represented by it would fall sick. However, he would get well again if a friend of his could induce the magician to steady the figure by sticking it firmly in the sandy bottom of the sea. When the Lerons of Borneo wish to be revenged on an enemy, they make a wooden image of him and leave it in the jungle. As it decays, he dies. More elaborate is the proceeding adopted by the Kenyahs of Borneo in similar circumstances. The operator retires with the image to a quiet spot on the river bank, and when a hawk appears in a certain part of the sky, he kills a fowl, smears its blood on the image, and puts a bit of fat in the mouth of the figure, saying, "Put fat in his mouth." By that he means, "May his head be cut off, hung up in an enemy's house, and fed with fat in the usual way." Then he strikes at the breast of the image with a small wooden spear, throws it into a pool of water reddened with red earth, and afterwards takes it out and buries it in the ground.

3. Contagious Magic

Thus[3] far we have been considering chiefly that branch of sympathetic magic which may be called homeopathic or imitative. Its leading principle, as we have seen, is that like produces like, or, in other words, that an effect resembles its cause. The other great branch of sympathetic magic, which I have called Contagious Magic, proceeds upon the notion that things which have once been con-

[3] *Ibid.*, pp. 174–177.

joined must remain ever afterwards, even when quite dissevered from each other, in such a sympathetic relation that whatever is done to the one must similarly affect the other. Thus the logical basis of Contagious Magic, like that of Homeopathic Magic, is a mistaken association of ideas; its physical basis, if we may speak of such a thing, like the physical basis of Homeopathic Magic, is a material medium of some sort which, like the ether of modern physics, is assumed to unite distant objects and to convey impressions from one to the other. The most familiar example of Contagious Magic is the magical sympathy which is supposed to exist between a man and any severed portion of his person, as his hair or nails; so that whoever gets possession of human hair or nails may work his will, at any distance, upon the person from whom they were cut. This superstition is world-wide. . . . While like other superstitions it has had its absurd and mischievous consequences, it has nevertheless indirectly done much good by furnishing savages with strong, though irrational, motives for observing rules of cleanliness which they might never have adopted on rational grounds. How the superstition has produced this salutary effect will appear from a single instance, which I will give in the words of an experienced observer. Amongst the natives of the Gazelle Peninsula in New Britain "it is, as a rule, necessary for the efficiency of a charm that it should contain a part of the person who is to be enchanted (for example, his hair), or a piece of his clothing, or something that stands in some relation to him, such as his excrements, the refuse of his food, his spittle, his footprints, etc. All such objects can be employed as *panait*, that is, as a medium for a *papait* or charm, consisting of an incantation or murmuring of a certain formula, together with the blowing into the air of some burnt lime which is held in the hand. It need hardly, therefore, be said that the native removes all

such objects as well as he can. Thus the cleanliness which is usual in the houses and consists in sweeping the floor carefully every day, is by no means based on a desire for cleanliness and neatness in themselves, but purely on the effort to put out of the way anything that might serve an ill-wisher as a charm.'' I will now illustrate the principles of Contagious Magic by examples, beginning with its application to various parts of the human body.

Among the Australian tribes it was a common practice to knock out one or more of a boy's front teeth at those ceremonies of initiation to which every male member had to submit before he could enjoy the rights and privileges of a full-grown man. The reason of the practice is obscure. . . . All that concerns us here is the evidence of a belief that a sympathetic relation continued to exist between the lad and his teeth after the latter had been extracted from his gums. Thus among some of the tribes about the river Darling, in New South Wales, the extracted tooth was placed under the bark of a tree near a river or water hole; if the bark grew over the tooth, or if the tooth fell into the water, all was well; but if it were exposed and the ants ran over it, the natives believed that the boy would suffer from a disease of the mouth. Among the Murring and other tribes of New South Wales the extracted tooth was at first taken care of by an old man, and then passed from one headman to another, until it had gone all round the community, when it came back to the lad's father, and finally to the lad himself. But however it was thus conveyed from hand to hand, it might on no account be placed in a bag containing magical substances, for to do so would, they believed, put the owner of the tooth in great danger. The late Dr. Howitt once acted as custodian of the teeth which had been extracted from some novices at a ceremony of initiation, and the old men earnestly besought him not to carry them in a bag

in which they knew that he had some quartz crystals. They declared that if he did so the magic of the crystals would pass into the teeth, and so injure the boys. Nearly a year after Dr. Howitt's return from the ceremony he was visited by one of the principal men of the Murring tribe, who had traveled some two hundred and fifty miles from his home to fetch back the teeth. This man explained that he had been sent for them because one of the boys had fallen into ill health, and it was believed that the teeth had received some injury which had affected him. He was assured that the teeth had been kept in a box apart from any substances, like quartz crystals, which could influence them; and he returned home bearing the teeth with him carefully wrapt up and concealed. In the Dieri tribe of South Australia the teeth knocked out at initiation were bound up in emu feathers, and kept by the boy's father or his next-of-kin until the mouth had healed, and even for long afterwards. Then the father, accompanied by a few old men, performed a ceremony for the purpose of taking all the supposed life out of the teeth. He made a low rumbling noise without uttering any words, blew two or three times with his mouth, and jerked the teeth through his hand to some little distance. After that he buried them about eighteen inches under ground. The jerking movement was meant to show that he thereby took all the life out of the teeth. Had he failed to do so, the boy would, in the opinion of the natives, have been liable to an ulcerated and wry mouth, impediment in speech, and ultimately a distorted face. This ceremony is interesting as a rare instance of an attempt to break the sympathetic link between a man and a severed part of himself by rendering the part insensitive.

A[4] curious application of the doctrine of contagious

[4] *Ibid.*, pp. 201–203.

magic is the relation commonly believed to exist between a wounded man and the agent of the wound, so that whatever is subsequently done by or to the agent must correspondingly affect the patient either for good or evil. Thus Pliny tells us that if you have wounded a man and are sorry for it, you have only to spit on the hand that gave the wound, and the pain of the sufferer will be instantly alleviated. In Melanesia, if a man's friends get possession of the arrow which wounded him, they keep it in a damp place or in cool leaves, for then the inflammation will be trifling, and will soon subside. Meantime the enemy who shot the arrow is hard at work to aggravate the wound by all the means in his power. For this purpose he and his friends drink hot and burning juices and chew irritating leaves, for this will clearly inflame and irritate the wound. Further, they keep the bow near the fire to make the wound which it has inflicted hot; and for the same reason they put the arrowhead, if it has been recovered, into the fire. Moreover, they are careful to keep the bowstring taut and to twang it occasionally, for this will cause the wounded man to suffer from tension of the nerves and spasms of tetanus. Similarly when a Kwakiutl Indian of British Columbia had bitten a piece out of an enemy's arm, he used to drink hot water afterwards for the purpose of thereby inflaming the wound in his foe's body. Among the Lkuñgen Indians of the same region it is a rule that an arrow, or any other weapon that has wounded a man, must be hidden by his friends, who have to be careful not to bring it near the fire till the wound is healed. If a knife or an arrow which is still covered with a man's blood were thrown into the fire, the wounded man would suffer very much. In the Yerkla-mining tribe of south-eastern Australia it is thought that if any one but the medicine man touches the flint knife with which a boy has been subincised, the boy will thereby be made very

ill. So seriously is this belief held that if the lad chanced thereafter to fall sick and die, the man who had touched the knife would be killed. "It is constantly received and avouched," says Bacon, "that the anointing of the weapon that maketh the wound will heal the wound itself. In this experiment, upon the relation of men of credit (though myself, as yet, am not fully inclined to believe it), you shall note the points following: first, the ointment wherewith this is done is made of divers ingredients, whereof the strangest and hardest to come by are the moss upon the skull of a dead man unburied, and the fats of a boar and a bear killed in the act of generation." The precious ointment compounded out of these and other ingredients was applied, as the philosopher explains, not to the wound but to the weapon, and that even though the injured man was at a great distance and knew nothing about it. The experiment, he tells us, had been tried of wiping the ointment off the weapon without the knowledge of the person hurt, with the result that he was presently in a great rage of pain until the weapon was anointed again. Moreover, "it is affirmed that if you cannot get the weapon, yet if you put an instrument of iron or wood resembling the weapon into the wound, whereby it bleedeth, the anointing of that instrument will serve and work the effect." Remedies of the sort which Bacon deemed worthy of his attention are still in vogue in the eastern counties of England. Thus in Suffolk if a man cuts himself with a bill-hook or a scythe he always takes care to keep the weapon bright, and oils it to prevent the wound from festering. If he runs a thorn or, as he calls it, a bush into his hand, he oils or greases the extracted thorn. A man came to a doctor with an inflamed hand, having run a thorn into it while he was hedging. On being told that the hand was festering, he remarked, "That didn't ought to, for I greased the bush well arter I pulled it out."

CHAPTER III

THE DIFFERENTIATION OF PHILOSOPHY AND SCIENCE FROM RELIGION

1. Native Fallacies of Human Thought

There is no classic discussion of the breakdown of primitive thought and the development of the consciousness of correct principles, suitable for our present purpose, but the following classic passages from Francis Bacon point out native tendencies to error on the part of the mind, tendencies which are at the basis of the fallacies the primitive man constantly commits:[1]

XLV

The human understanding is of its own nature prone to suppose the existence of more order and regularity in the world than it finds. And though there be many things in nature which are singular and unmatched, yet it devises for them parallels and conjugates and relatives which do not exist. . . .

XLVI

The human understanding when it has once adopted an opinion (either as being the received opinion or as being agreeable to itself) draws all things else to support and agree with it. And though there be a greater number and

[1] Bacon, Francis, *Novum Organum*; edition of 1863.
Francis Bacon (1561–1626) was a man of affairs in English political history as well as an essayist and philosopher. His fame in philosophy rests chiefly upon his *Novum Organum*, which sounded the keynote of inductive method in modern science and philosophy. It was first published in 1620 at London.

weight of instances to be found on the other side, yet these it either neglects and despises, or else by some distinction sets aside and rejects; in order that by this great and pernicious predetermination the authority of its former conclusions may remain inviolate. And therefore it was a good answer that was made by one who when they showed him hanging in a temple a picture of those who had paid their vows as having escaped shipwreck, and would have him say whether he did not acknowledge the power of the gods,—"Aye," asked he again, "but where are they painted that were drowned after their vows?" And such is the way of all superstition, whether in astrology, dreams, omens, divine judgments, or the like; wherein men, having a delight in such vanities, mark the events where they are fulfilled, but where they fail, though this happen much oftener, neglect and pass them by. But with far more subtlety does this mischief insinuate itself into philosophy and the sciences; in which the first conclusion colors and brings into conformity with itself all that come after, though far sounder and better. Besides, independently of that delight and vanity which I have described, it is the peculiar and perpetual error of the human intellect to be more moved and excited by affirmatives than by negatives; whereas it ought properly to hold itself indifferently disposed towards both alike. Indeed in the establishment of any true axiom, the negative instance is the more forcible of the two.

XLVII

The human understanding is moved by those things most which strike and enter the mind simultaneously and suddenly, and so fill the imagination; and then it feigns and supposes all other things to be somehow, though it cannot see how, similar to those few things by which it is sur-

rounded. But for that going to and fro to remote and heterogeneous instances, by which axioms are tried as in the fire, the intellect is altogether slow and unfit, unless it be forced thereto by severe laws and overruling authority.

XLIX

The human understanding is no dry light, but receives an infusion from the will and affections; whence proceed sciences which may be called "sciences as one would." For what a man had rather were true he more readily believes. Therefore he rejects difficult things from impatience of research; sober things, because they narrow hope; the deeper things of nature, from superstition; the light of experience, from arrogance and pride, lest his mind should seem to be occupied with things mean and transitory; things not commonly believed, out of deference to the opinion of the vulgar. Numberless in short are the ways, and sometimes imperceptible, in which the affections color and infect the understanding.

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But by far the greatest hindrance and aberration of the human understanding proceeds from the dullness, incompetency, and deceptions of the senses; in that things which strike the sense outweigh things which do not immediately strike it, though they be more important. Hence it is that speculation commonly ceases where sight ceases; insomuch that of things invisible there is little or no observation. Hence all the working of the spirits inclosed in tangible bodies lies hid and unobserved of men. So also all the more subtle changes of form in the parts of coarser substances (which they commonly call alteration, though it is in truth local motion through exceedingly small spaces) is

in like manner unobserved. And yet unless these two things just mentioned be searched out and brought to light, nothing great can be achieved in nature, as far as the production of works is concerned. So again the essential nature of our common air, and of all bodies less dense than air (which are very many), is almost unknown. For the sense by itself is a thing infirm and erring; neither can instruments for enlarging or sharpening the senses do much; but all the truer kind of interpretation of nature is effected by instances and experiments fit and apposite; wherein the sense decides touching the experiment only, and the experiment touching the point in nature and the thing itself.

LI

The human understanding is of its own nature prone to abstractions and gives a substance and reality to things which are fleeting. . . .

LV

There is one principal and as it were radical distinction between different minds, in respect of philosophy and the sciences; which is this: that some minds are stronger and apter to mark the differences of things, others to mark their resemblances. The steady and acute mind can fix its contemplations and dwell and fasten on the subtlest distinctions: the lofty and discursive mind recognizes and puts together the finest and most general resemblances. Both kinds however easily err in excess, by catching the one at gradations the other at shadows.

LVI

There are found some minds given to an extreme admiration of antiquity, others to an extreme love and appetite

for novelty; but few so duly tempered that they can hold the mean, neither carping at what is well laid down by the ancients, nor despising what is well introduced by the moderns. This however turns to the great injury of the sciences and philosophy; since these affectations of antiquity and novelty are the humors of partisans rather than judgments; and truth is to be sought for not in the felicity of any age, which is an unstable thing, but in the light of nature and experience, which is eternal. These factions therefore must be abjured, and care must be taken that the intellect be not hurried by them into assent.

LIX

. . . For men believe that their reason governs words; but it is also true that words react on the understanding; and this it is that has rendered philosophy and the sciences sophistical and inactive. Now words, being commonly framed and applied according to the capacity of the vulgar, follow those lines of division which are most obvious to the vulgar understanding. And whenever an understanding of greater acuteness or a more diligent observation would alter those lines to suit the true divisions of nature, words stand in the way and resist the change. Whence it comes to pass that the high and formal discussions of learned men end oftentimes in disputes about words and names; with which (according to the use and wisdom of the mathematicians) it would be more prudent to begin, and so by means of definitions reduce them to order. Yet even definitions cannot cure this evil in dealing with natural and material things; since the definitions themselves consist of words, and those words beget others: so that it is necessary to recur to individual instances, and those in due series and order; as I shall say presently when I come to the method and scheme for the formation of notions and axioms.

LX

The idols imposed by words on the understanding are of two kinds. They are either names of things which do not exist (for as there are things left unnamed through lack of observation, so likewise are there names which result from fantastic suppositions and to which nothing in reality corresponds), or they are names of things which exist, but yet confused and ill-defined, and hastily and irregularly derived from realities.

XCVIII

Now for grounds of experience—since to experience we must come—we have as yet had either none or very weak ones; no search has been made to collect a store of particular observations sufficient either in number, or in kind, or in certainty, to inform the understanding, or in any way adequate. On the contrary, men of learning, but easy withal and idle, have taken for the construction or for the confirmation of their philosophy certain rumors and vague fames or airs of experience, and allowed to these the weight of lawful evidence. And just as if some kingdom or state were to direct its counsels and affairs, not by letters and reports from ambassadors and trustworthy messengers, but by the gossip of the streets; such exactly is the system of management introduced into philosophy with relation to experience. Nothing duly investigated, nothing verified, nothing counted, weighed, or measured, is to be found in natural history: and what in observation is loose and vague, is in information deceptive and treacherous. . . .

Good hopes may therefore be conceived of natural philosophy, when natural history, which is the basis and foundation of it, has been drawn up on a better plan; but not till then.

CIV

The understanding must not however be allowed to jump and fly from particulars to remote axioms and of almost the highest generality (such as the first principles, as they are called, of arts and things), and taking stand upon them as truths that cannot be shaken, proceed to prove and frame the middle axioms by reference to them; which has been the practice hitherto; the understanding being not only carried that way by a natural impulse, but also by the use of syllogistic demonstration trained and inured to it. But then, and then only, may we hope well of the sciences, when in a just scale of ascent, and by successive steps not interrupted or broken, we rise from particulars to lesser axioms; and then to middle axioms, one above the other; and last of all to the most general. For the lowest axioms differ but slightly from bare experience, while the highest and most general (which we now have) are notional and abstract and without solidity. But the middle are the true and solid and living axioms, on which depend the affairs and fortunes of men; and above them again, last of all, those which are indeed the most general; such I mean as are not abstract, but of which those intermediate axioms are really limitations.

The understanding must not therefore be supplied with wings, but rather hung with weights, to keep it from leaping and flying.

2. Early Greek Philosophy

The following passages constitute some of the principal sources of our knowledge of the theories of the early Greek philosophers:

THALES:[2] Most of the very early philosophers thought the material principle of things was the only one. For

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2 Translated from Diels, *Fragmente der Vorsokratiker*, 3d edition (1912) 1, Thales: (Letters and numbers correspond to designation

that of which things are composed, out of which at first they arise, and into which they finally pass away, the Reality enduring though changing in attributes,—this they say is the substance and first principle of things. And for this reason they think that nothing really either comes into being or is destroyed, since there is a substance of this kind which is always conserved. . . . For there must be some natural substance, whether one or more than one, out of which all things arise, being itself everlasting. But as to the number and the nature of such principles all do not say the same thing. Thales, the founder of this kind of philosophy, says it is water; (therefore, also, he represented the earth as floating upon water), deriving this suggestion perhaps from seeing that the nourishment of all things is moist, that even heat is derived from and sustained by it, (and that out of which a thing comes is its first principle). He derived the suggestion from this and also from the fact that the seed of all living things is moist in character, and water is the first principle of what is moist. (A 12.)

. . . Thales thought all things were full of gods. (A 22.)

Thales said God is the mind of the universe, and that everything is alive and full of divine powers. (A 23.)

It appears that Thales, from the accounts given of him, supposed the soul to be a cause of motion, if indeed he said the lodestone had a soul because it moved iron. (A 22.)

Thales said the stars were made of earth, but fiery hot. (A 17a.)

They say that Thales first proved that the circle is bisected by the diameter. . . . He is said first to have noted and said that in every isosceles triangle the angles next

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in that work.) Thales (624–550 B.C.), of Miletus, was one of the seven wise men of Greece. He was famous for his work as a statesman, astronomer, mathematician and philosopher.

to the base are equal. . . . He also proved this theorem: that when two straight lines intersect the vertical angles are equal. (A 20.)

ANAXIMANDER:[3] This man said the first principle and elemental substance was the "boundless," not defining it as air or water or any other specific thing. The parts of it change place, but the whole is unchangeable. The earth stands in the middle of things, holding the central position and having the form of a sphere. The moon shines by reflected light and is illuminated by the sun. The sun is no smaller than the earth, and is of the purest fire (1).

Of those who spoke of one moving and boundless substance Anaximander, son of Praxiades, of Miletus, who had been a pupil and successor of Thales, said the first principle and elemental substance was "the boundless," being the first one to give this name to the first principle. He says it is neither water nor any other of the so-called elements, but a different kind of substance—indeterminate—from which all the heavens and the worlds within them originated. And into that from which things have their origin do they also decay in accordance with necessity; for they make amends and give satisfaction for wrong to each other in the course of time;—speaking thus in rather poetic terms. (9.)

He says the earth is cylindrical in form, and that its depth is one-third of its breadth. . . . Further, he says that man was produced in the beginning from an animal of a different form; arguing from the fact that all others quickly come to support themselves, but man alone needs nursing for a long time; wherefore in the beginning if he had been of this kind he would not have survived. (10.)

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[3] *Ibid.:* 2, Anaximander.
Anaximander (611–547), of Miletus, was a disciple of Thales, noted for his work in geography, astronomy and philosophy.

ANAXIMENES:[4] Anaximenes, son of Eurystratus, of Miletus, represented the fundamental principle of all things as air; for from this all things come, and into it again they are dissolved. "As our soul," says he, "which is air holds us together, so breath and air surround the whole universe." (B 2.)

Anaximenes . . . said the boundless air was the first principle from which come all things that are, that have been, and that will be, even gods and things divine; and all other things are the offspring of this. The nature of the air is as follows: when it is in its ordinary condition it is invisible, but is revealed by its coldness or warmth or wetness or motion; and it is always moving, for it could not bring about the changes which it does if it did not move. . . . The stars arose out of the earth, from the moisture arising from it, which becoming rare develops into fire, and from the fire floating on high the stars were composed. (A 7.)

Anaximenes . . . , like his predecessor, says the underlying substance is boundless, yet not—as he had said—undetermined, but of a definite kind, namely air; and it varies in different substances through rarity and density. When it becomes rarer it is fire, denser wind, then cloud, and when still more—water, then earth, then stones. All other things are composed of these. And it also produces an eternal movement through which change occurs. (A 5.)

By compression of the air, he says, the earth first came into existence, being quite flat, hence, as is reasonable, it was borne upon the air; and the sun and the moon and the other heavenly bodies had their source in the earth. Therefore he declares that the sun is made of earth, but because of its swift motion it has acquired its very high temperature. (A 6.)

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[4] *Ibid.:* Anaximenes.
Anaximenes (588–524), was also a philosopher of Miletus, and a disciple of Anaximander.

HERACLITUS:[5] The opposed agree; out of different tones comes the most beautiful harmony; and all things arise through strife. (B 8.)

War is the father of all things, and king of all; some it showed to be gods and others men, some it made slave, some free. (B 53.)

This world, the same for all, no god or man created; but it always was, and is, and will be, an everliving fire, being kindled and quenched in certain degrees. (B 30.)

The transformations of fire are: first sea; of the sea one-half earth, half hurricane. . . . The sea is spread round and measured in accordance with the same Reason which was before the earth was. (B 31.)

The one, which alone is wise, will and will not be called by the name of Zeus. (B 32.)

The stupid, when they hear, are like the deaf; the saying fits them—"though present they are absent." (B 34.)

Into the same river we step and do not step, we go and do not go. (B 49a.)

To those who go into the same river ever new water is flowing. (B 12.)

God is day, night; winter, summer; war, peace; surfeit, famine; and he changes as fire does; when it is mingled with spices it is given the name of the fragrance of each. (B 67.)

They are at variance with the Reason which disposes all and with which they are most constantly in converse; and the things with which they meet from day to day appear strange to them. (B 72.)

One ought to know that war is universal; justice is strife; and all things occur through strife and necessity. (B 80.)

Those who speak with intelligence must arm themselves

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[5] *Ibid.:* 12, Herakleitos.

Heraclitus (535–475), of Ephesus, was of aristocratic birth, fond of paradoxes, and pessimistic in attitude toward mankind in general.

with that which is the common possession of all, as the city with law,—and even more strongly; for human laws are sustained by the one divine law; it has as much power as it pleases; it suffices for and surpasses all. (B 114.)

XENOPHANES:[6] There is one God, greatest among gods and men, like mortals, in neither body nor mind. (B 23.)

Homer and Hesiod have ascribed to the gods all things which among men are a reproach and shame,—stealing, adultery, and deceiving one another. (B 11.)

But if oxen and horses or lions had hands and could draw and produce works such as men do, horses would have depicted the forms of gods like horses, oxen like oxen, and each would have given them bodies in form such as they themselves had. (B 15.)

The Ethiopians say their gods are flat-nosed and black, the Thracians that theirs are blue-eyed and red-haired. (B 16.)

The whole of Him sees, the whole of Him thinks, and the whole of Him hears. (B 24.)

Without effort he controls all things by the power of his mind. (B 25.)

Ever in the same place He remains unmoving; nor is it fitting for Him to move now hither now thither. (B 26.)

Mortals think that gods are born, and have clothing, voice, and body like theirs. (B 14.)

Not in the beginning did the gods reveal all things to mortals, but in time by seeking they learn better. (B 18.)

Xenophanes said that those who assert that the gods were born are as irreverent as those who say they die; for in either case at some time the gods do not exist. (A 12.)

Xenophanes, the first of these monists (for Parmenides

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[6] *Ibid.:* 11, Xenophanes.

Xenophanes (570–480), of Colophon, was a wandering religious poet and rhapsodist, who voiced original ideas of his own regarding the traditional religious beliefs of his day.

is said to have been a pupil of his), said nothing clearly, nor does he seem to have seized upon any one thing as "nature," but looking up at the whole heaven said the One is God. (A 30.)

PARMENIDES:[7] Never I ween shalt thou learn that Being can be of what is not;
Wherefore do thou withdraw thy mind from this path of inquiry,
Neither let habit compel thee, while treading this pathway of knowledge,
Still to employ a visionless eye or an ear full of ringing,
Yea, or a clamorous tongue; but prove this vexed demonstration
Uttered by me, by reason. And now there remains for discussion
One path only: That Being both be—and on *it* there are tokens
Many and many to show that what is is birthless and deathless,
Whole and only-begotten, and moveless and ever-enduring:
Never it was or shall be; but the ALL simultaneously now is,
One continuous one; for of it what birth shalt thou search for?
How and whence it hath sprung? I shall not permit thee to tell me,
Neither to think: "Of what is not," for none can say or imagine
How Not-Is becomes Is; or else what need should have stirred it,

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[7] Translation of Thomas Davidson, *Journal of Speculative Philosophy*, Vol. IV, 1870, pp. 5, 6.
Parmenides (fl. 470? B.C.), of Elea, developed a monistic philosophy on the basis of abstract, logical arguments.

After or yet before its beginning, to issue from nothing?
Thus either wholly Being must be or wholly must not be.
Never from that which is will the force of Intelligence suffer
Aught to become beyond being itself. Thence neither production
Neither destruction doth Justice permit, ne'er slackening her fetters;
But she forbids. And herein is contained the decision of these things;
Either there is or is not; but Judgment declares, as it needs must,
One of these paths to be uncomprehended and utterly nameless,
No true pathway at all, but the other to be and be real.
How can that which is now be hereafter, or how can it have been?
For if it hath been before, or shall be hereafter, it is not:
Thus generation is quenched and decay surpasseth believing.
Nor is there aught of distinct; for the ALL is self-similar alway.
Nor is there anywhere more to debar it from being unbroken;
Nor is there anywhere less, for All is sated with Being;
Wherefore the All is unbroken, and Being approacheth to Being.
Moveless, moreover, and bounded by great chains' limits it lieth,
Void of beginning, without any ceasing, since birth and destruction
Both have wandered afar, driven forth by the truth of conviction.
Same in the same and abiding, and self through itself it reposes.

Steadfast thus it endureth, for mighty Necessity holds it—
Holds it within the chains of her bounds and round doth secure it.
Wherefore that that which IS should be infinite is not permitted;
For it is lacking in naught, or else it were lacking in all things.

ZENO, THE ELEATIC:[8] There are four savings of Zeno about motion which present difficulties to those who would solve them. First, the one to the effect that a thing can not move, because it must traverse half the distance before it traverses all. . . . The second is the so-called "Achilles." This is that the slowest thing will never be overtaken in its motion by the swiftest; for the pursuer must first come to where the one pursued set out, so that the slower must always be somewhat in advance. . . . The third is the one now styled "The Flying Arrow Rests." It results from the assumption that time is composed of instants. . . . For, he says, if everything is either at rest or in motion, and is not moving when it is at a certain point, (and that which is moving is at a point at every instant), then the flying arrow is motionless. . . . The fourth is the one regarding the equal masses moving in a course in opposite directions side by side, some from the end of the course, and some from the middle, with equal speed; in which case he thinks half the time is equal to double it. (A 25-28.)

Having shown that if the real had no size it would not exist, he continues: but if it exists, each part of it must have some size, and thickness, and one part be at some distance from another. And the same statement is true of

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[8] Diels, *op. cit.:* 19, Zeno.
Zeno (490?–430?), of Elea, a pupil of Parmenides, defended the Eleatic philosophy by indicating puzzling consequences of opposing views.

the part next smaller than it. For it too will have size, and will have a next smaller part. But to say this once is as good as to endlessly repeat it; for no such part of it will be ultimate, nor will there ever be one which is not related to another. So if there are many things, they must be both small and large, so small as to have no size, and so large as to be infinite. (B 1.)

"Tell me, Protagoras," said he, "Does one grain or a ten thousandth part of a grain make a sound when it falls?" When he said that it does not, "But does a bushel of grain make a sound when it falls, or not?" When he said that the bushel did make a sound, "How then!" said Zeno, "Is not the ratio of the bushel of grain to the one the same as that of the one to the ten-thousandth part?" And when he said it was, "Why, then," said Zeno, "will not the ratio of the sounds be the same to each other? For as are the sounding bodies so are the sounds; but if this is so, and if the bushel of grain makes a sound the one grain will also make a sound; and likewise the ten-thousandth part of a grain." (A 29.)

EMPEDOCLES:[9] Of a twofold process will I speak; at one time one single substance came to be out of many, again at another several out of one. Twofold is the origin of mortal things, and twofold their cessation. In the one case the union of elements begets and destroys things; in the other the product of the scattering of elements is again scattered. And these things never cease alternating, at one time all things coming together through Love, at another again being borne apart through the hatred of Strife. Since one is accustomed to come out of many, and again many come out of one by its disintegration, things

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[9] *Ibid.:* 21, Empedokles.
Empedocles (495–435), of Agrigentum, statesman, religious teacher, poet, philosopher, attempted to effect a synthesis of the important features of preceding philosophies.

are always arising and their duration proves not lasting; but as they never cease alternating continuously, they are forever unmoved from their cycle. . . . At one time there came to be one thing only out of many, and then again many came out of one, fire and water and earth and the boundless height of air, and destructive Strife beside them equal in weight everywhere, and Love among them, equal in length and in breadth; . . . all these elements are equal and the same in birth; each holds a different office; each has its own character; and each in turn rules as time rolls on. Nothing comes into being in addition to these, nor does anything perish from them; for if they continually perished they would not exist any longer; and what could be added to this whole, and whence could it come? And how could it perish, since there is nothing beside these? These alone exist, and as they course among each other now one thing now another arises, and the like goes on always forever. (B 17.)

ANAXAGORAS:[10] All things were together, infinite in multitude and in smallness; . . . and while all things were together nothing was manifest,—because of its smallness; for air and ether, both boundless, surrounded all things, for these are preponderant in all things, both in multitude and in size. (B 1.)

Air and ether were generated out of the vast surrounding mass; and the surrounding mass is infinite in quantity. (B 2.)

. . . One must believe that many things, of varied kinds, are in all worlds; and the "seeds" of all things, having all kinds of forms, colors and flavors. Men and all other animals which have life have been composed out of these.

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[10] *Ibid.:* 46, Anaxagoras.
Anaxagoras (500–428), of Clazomenæ, mathematician, astronomer and philosopher, was a friend of Pericles, in Athens.

And the men possess inhabited cities and tilled lands as with us, and have a sun and moon and the other bodies as we; and the earth produces many things of varied kinds for them, the most useful of which they gather into their abodes and use. . . . But before these things were differentiated, while all were together no color was manifest, for the mixture of all things prevented,—the wet and the dry, the warm and the cold, the light and the dark, with much earth therein and seeds infinite in quantity, in no respect like one another. (B 4.)

In everything a portion of everything—except mind—is contained; but in some there is mind also. (B 11.)

Mind is boundless, and self-determining, and mixed with nothing, but exists by itself alone. For if it were not by itself, but had been mixed with something else it would have shared in all things. . . . And that which was mixed with it would have hindered it from controlling anything so well as when it exists alone by itself. For it is the most subtle of all things, and the purest, and understands all things, and has the greatest power. All things, great and small, which have life,—mind directs them. And mind ruled all the revolution, so that it began to revolve in the beginning. (B 12.)

CHAPTER IV

ATOMISTIC MATERIALISM

1. Leukippus and Democritus

Early Greek atomism is represented by the following extracts from the works of Leukippus and Democritus, and from early writers' accounts of them:

LEUKIPPUS:[1] Nothing arises by chance, but all things from reason and by necessity. (B 2.)

Leukippus and his companion Democritus say that the elements are the plenum and the void, calling the one being and the other non-being,—of the two that which is full and solid is being, that which is empty and tenuous is non-being (wherefore the real exists no more than the unreal, they say, because empty space exists no less than solid bodies); and these are the fundamental principles of things, the material of which they are made. And as those who consider the fundamental reality as One account for all other things by changes in the condition of this, positing rarefaction and condensation as the causes of these changes of condition,—in the same way these men say differences in the elements are the causes of other things. Now these differences, they say, are three,—forms, order and position; for they maintain that the real differs in shape, in arrangement and in situation only; and of these shape is

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[1] Translated from Diels, *op. cit.*: 54, Leukippos.
Leukippos (5 C., B.C.), of Miletus and Abdera, is credited by some ancient traditions with the originating of the atomic theory. Little is known about him.

form, arrangment is order, and situation is position. A differs from N in form; AN from NA in order; I from H in position. As for motion whence or how it happens to things they, as others, lightly dismiss it. (A 6).

Leukippus, the Eleatic or Milesian (he is classified under both headings), though he had been a companion of Parmenides in philosophy, did not hold the same view as Parmenides and Xenophanes regarding the real, but the opposite as it seems. . . . He posited the atoms as countless and ever moving elements, and the multitude of forms among them as infinite (because there was no more reason for their being of one kind than of another), holding also that origination and change are incessant among real things. Furthermore, he held that "being" exists no more than "non-being," and that both principles are involved in things which change. Conceiving the essence of the atoms as compact and full, he said they were "being" and were suspended in the void, which he called "non-being." (A 8.)

He says the universe is infinite in extent, . . . and a part of it is solid, part empty space. These are the elements. And there are countless worlds arising out of these, and being dissolved into them. And the origin of worlds is as follows: many bodies, of various forms, becoming separated from the infinite are borne into the great void, and they having gathered together form a single vortex, in which striking against each other and circling around in all possible ways, like parts are gathered to like. When bodies of equal weight no longer are able to move about on account of their number the small ones withdraw to the outer void, darting out as it were. But the rest remain together and becoming intertwined unite with each other and form a kind of spherical system. (A 1.)

DEMOCRITUS:[2] Democritus thinks the nature of the eternal principles to be small units of matter, infinite in number; and around these he conceives a region infinite in magnitude. He describes this region in the terms "empty," "nothing," and "the infinite," and each of the units of matter as "something," "solid," "real." He thinks these units are so small that they escape our perception. And they have all kinds of forms and all possible shapes and differences in size. From these, then, as elements, he conceives visible and perceptible masses to be originated and compounded. They separate off and are carried about in the void because of their dissimilarities and other differences mentioned. As they are carried about they strike one another, and are involved in an intricate arrangement, which causes them to draw near and come into contact with each other; but does not in fact transform them into a single nature; for it is absolutely foolish to say that "duality" or "plurality" would become "unity." The mingling of the bodies with each other for some time brings about the interchange and exchange of particles; for some of them are irregular, some hooked, some hollow, some curved; some have innumerable differences. He thinks they cling to each other for a time and remain together, until some more powerful force from the surrounding region coming up disturbs them and scatters them apart. And he asserts this mode of origination and the opposed annihilation not only of animals but also of plants and worlds and in short of all perceptible bodies. If then origination is collection of atoms and destruction their scattering, according to Democritus origination would be merely change. (A 37.)

(The soul) has appeared to some to be fire; for this is

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2 *Ibid:* 55, Demokritos.

Democritus (460–370), of Abdera, an extensive traveler and prolific writer, is usually regarded as having developed the atomic theory.

the most subtle and most nearly immaterial of the elements, and besides it moves and moves other things very readily. Democritus has adduced the most critical arguments as to why both of these facts are so. For soul is the same as mind. And this is one of the most elemental and irreducible of bodies, and mobile because of the smallness of its parts, and because of its form. And he says that the most mobile of forms is the spherical; and of this form are mind and fire. (A 101.)

Man must know . . . that he is remote from the truth. (B 6.)

This account shows that we know nothing in truth about anything; but each one's opinion is impression. (B 7).

And yet it will be clear that it is difficult to know how each thing really is. (B 8.)

We perceive nothing certainly in reality, but only as a transitory thing according to the condition of the body and the inflowing and reacting influences. (B 9.)

There are two forms of knowledge, one legitimate, the other illegitimate; illegitimate are all the following: sight, hearing, smell, taste, touch. The genuine is quite distinct from these. When the illegitimate can no more see nor hear nor smell nor taste nor perceive by touch because of the minuteness of its object, and it is necessary to search into the more subtle, then comes the legitimate which has a more subtle organ of knowledge. (B 11.)

By convention there is color; by convention sweetness; by convention bitterness; but in reality atoms and the void. (B 125.)

Tranquillity comes to men through moderation in enjoyment and through symmetry of life. But deficiency and superfluity are prone to change into each other and cause great commotions in the soul. But those souls which are stirred by great changes are neither stable nor tranquil. One must then keep his mind upon the possible and be sat-

isfied with what is at hand, with little regard for the things that are commonly envied and admired, not pursuing them in thought. One must consider the lives of the distressed, bearing clearly in mind what they suffer, in order that the present and what already belongs to one may appear great and enviable, and it may not be the lot of one's soul to suffer ill through desiring something more. For he who admires those who have possessions and those who are considered happy by other men and who in mind chase after them every hour are forced continually to contrive new schemes and to conceive the desire to commit some irreparable deed which the laws forbid. Wherefore one ought not to seek these things, but be satisfied with one's own possessions, comparing his life with that of those who are faring worse and consider himself happy, bearing in mind what they are suffering and how much better than they he is faring and living. Keeping to this state of mind you will ward off not a few calamities, envy, jealousy and ill will. (B 191).

2. Epicurus

Atomistic materialism of the fourth century B.C. is represented by the following account of the philosophy of Epicurus. The direct quotations are from the letter of Epicurus to Herodotus. Parentheses contain comments of Diogenes.[3]

"First of all, we must admit that nothing can come of that which does not exist; for, were the fact otherwise, then everything would be produced from everything, and there would be no need of any seed. And if that which

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[3] Diogenes Laertius, *The Lives and Opinions of Eminent Philosophers,* Book X; *The Life of Epicurus,* translated by C. D. Yonge (1853), pp. 438–441.

Epicurus (341–270), of Samos, taught in various cities of Greece. In 306 he opened a school at Athens. He was highly regarded as a teacher and personal friend. He wrote many works, but most of them have been lost, and none is complete.

disappeared were so absolutely destroyed as to become non-existent, then everything would soon perish, as the things with which they would be dissolved would have no existence. But, in truth, the universal whole always was such as it now is, and always will be such. For there is nothing into which it can change; for there is nothing beyond this universal whole which can penetrate into it, and produce any change in it."

(And Epicurus establishes the same principles at the beginning of the Great Abridgment; and in the first book of his Treatise on Nature.) "Now the universal whole is a body; for our senses bear us witness in every case that bodies have a real existence; and the evidence of the senses, as I have said before, ought to be the rule of our reasoning about everything which is not directly perceived. Otherwise, if that which we call the vacuum, or space, or intangible nature, had not a real existence, there would be nothing in which the bodies could be contained, or across which they could move, as we see that they really do move. Let us add to this reflection that one cannot conceive, either in virtue of perception, or of any analogy founded on perception, any general quality peculiar to all beings which is not either an attribute, or an accident of the body, or of the vacuum."

(The same principles are laid down in the first, and fourteenth, and fifteenth book of the Treatise on Nature; and also in the Great Abridgment.)

"Now, of bodies, some are combinations, and some the elements out of which these combinations are formed. These last are indivisible, and protected from every kind of transformation; otherwise everything would be resolved into non-existence. They exist by their own force, in the midst of the dissolution of the combined bodies, being absolutely full, and as such offering no handle for destruction to take hold of. It follows, therefore, as a matter of ab-

solute necessity, that the principles of things must be corporeal, indivisible elements.

"The universe is infinite. For that which is finite has an extreme, and that which has an extreme is looked at in relation to something else. Consequently, that which has not an extreme, has no boundary; and if it has no boundary, it must be infinite, and not terminated by any limit. The universe then is infinite, both with reference to the quantity of bodies of which it is made up, and to the magnitude of the vacuum; for if the vaccum were infinite, the bodies being finite, then, the bodies would not be able to rest in any place; they would be transported about, scattered across the infinite vacuum for want of any power to steady themselves, or to keep one another in their places by mutual repulsion. If, on the other hand, the vaccum were finite, the bodies being infinite, then the bodies clearly could never be contained in the vacuum.

"Again: the atoms which form the bodies, these full elements from which the combined bodies come, and into which they resolve themselves, assume an incalculable variety of forms, for the numerous differences which the bodies present cannot possibly result from an aggregate of the same forms. Each variety of forms contains an infinity of atoms, but there is not for that reason an infinity of atoms; it is only the number of them which is beyond calculation."

(Epicurus adds, a little lower down, that divisibility, *ad infinitum*, is impossible; for, says he, the only things which change are the qualities; unless, indeed, one wishes to proceed from division to division, till one arrives absolutely at infinite littleness.)

"The atoms are in a continual state of motion."

(He says, farther on, that they move with an equal rapidity from all eternity, since the vacuum offers no more resistance to the lightest than it does to the heaviest.)

"Among the atoms, some are separated by great distances, others come very near to one another in the formation of combined bodies, or at times are enveloped by others which are combining; but in this latter case they, nevertheless, preserve their own peculiar motion, thanks to the nature of the vacuum, which separates the one from the other, and yet offers them no resistance. The solidity which they possess causes them, while knocking against one another, to react the one upon the other; till at last the repeated shocks bring on the dissolution of the combined body; and for all this there is no external cause, the atoms and the vacuum being the only causes."

(He says, farther on, that the atoms have no peculiar quality of their own, except from magnitude and weight. As to color, he says in the twelfth book of his Principia, that it varies according to the position of the atoms. Moreover, he does not attribute to the atoms any kind of dimensions; and, accordingly, no atom has ever been perceived by the senses; but this expression, if people only recollect what is here said, will by itself offer to the thoughts a sufficient image of the nature of things.)

"But, again, the worlds also are infinite, whether they resemble this one of ours or whether they are different from it. For, as the atoms are, as to their number, infinite, as I have proved above, they necessarily move about at immense distances; for besides, this infinite multitude of atoms, of which the world is formed, or by which it is produced, could not be entirely absorbed by one single world, nor even by any worlds, the number of which was limited, whether we suppose them like this world of ours, or different from it. There is, therefore, no fact inconsistent with an infinity of worlds.

"Moreover, there are images resembling, as far as their form goes, the solid bodies which we see, but which differ materially from them in the thinness of their substance.

In fact it is not impossible but that there may be in space some secretions of this kind, and an aptitude to form surfaces without depth, and of an extreme thinness; or else that from the solids there may emanate some particles which preserve the connection, the disposition, and the motion which they had in the body. I give the name of images to these representations; and, indeed, their movement through the vacuum taking place, without meeting any obstacle or hindrance, perfects all imaginable extent in an inconceivable moment of time; for it is the meeting of obstacles, or the absence of obstacles, which produces the rapidity or slowness of their motion. At all events, a body in motion does not find itself, at any moment imaginable, in two places at the same time; that is quite inconceivable. From whatever point of infinity it arrives at some appreciable moment, and whatever may be the spot in its course in which we perceive its motion, it has evidently quitted that spot at the moment of our thought; for this motion which, as we have admitted up to this point, encounters no obstacle to its rapidity, is wholly in the same condition as that the rapidity of which is diminished by the shock of some resistance.

3. Atomism in Roman Thought

The following is a typical passage from the famous poem of Lucretius, the Latin writer of the first century B.C. It explains how the atoms came to collide with each other:[4]

Now seeds in downward motion must decline,
Though very little from th' exactest line:
For did they still move straight, they needs must fall,
Like drops of rain, dissolved and scattered all;

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[4] Titus Lucretius Carus, *On the Nature of Things,* translated by Thomas Creech (1793), Book II, lines 210–239.

Lucretius (98–54), was a Roman poet, of equestrian rank, an exponent of the theory of Epicurus. His poem "On Nature" is one of the best sources of information regarding Epicurean doctrine.

Forever tumbling through the mighty space,
And never join to make one single mass.
If any one believes, the heavier seed,
In downright motions, and from hindrance freed,
May strike the lighter; and fit motions make,
Whence things may rise, how great is the mistake!
'Tis true when weights descend through yielding air,
Or streams; the swiftness of the fall must bear
Proportion to the weights; and reason good;
Because the fleeting air, and yielding flood
With equal strength resist not every course,
But sooner yield unto the greater force:
But now no void can stop, no space can stay
The seeds; for 'tis its nature to give way;
Therefore through void unequal weights must be
Like swift in motion, all of like degree
Nor can the heavier bodies overtake
The lighter falling seeds; and, striking, make
The motions various, fit for nature's use,
By which all pow'rful she may things produce.
'Tis certain then and plain, that seeds decline,
Though very little from th' exactest line,
But not obliquely move: that fond pretense
Would fight all reason, nay, ev'n common sense:
For ev'ry body sees, a falling weight
Makes its descent by lines direct and straight.

CHAPTER V

SKEPTICISM AND SOPHISTRY

1. The Man Measure Doctrine of Protagoras

The following statement is from Plato who gives it for the purpose of criticizing it, but it appears to be a very fair presentation of the doctrine, and the nearest we have to Protagoras, from whom no statement has survived:[1]

Theaet. Now he who knows perceives what he knows, and, as far as I can see at present, knowledge is perception.

Soc. Bravely said, boy; that is the way in which you should express your opinion. And now, let us examine together this conception of yours, and see whether it is a true birth or a mere windegg. You say that knowledge is perception?

Theaet. Yes.

Soc. Well, you have delivered yourself of a very important doctrine about knowledge; it is indeed the opinion of Protagoras, who has another way of expressing it. Man, he says, is the measure of all things, of the existence of things that are, and of the non-existence of things that are not. You have read him?

Theaet. O, yes, again and again.

Soc. Does he not say that things are to you such as

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[1] Plato, *Theaetetus,* 151d–157c; from Jowett, B., *The Dialogues of Plato, translated into English,* 3d edition (1892), published by The Macmillan Company; reprinted by permission.

Protagoras (480?–410?) of Abdera, friend of Democritus, and follower of the philosophy of Heraclitus, was the first to call himself a sophist, and to teach for pay. He was especially interested in the theory of civic virtue.

they appear to you, and to me such as they appear to me, and that you and I are men?

Theaet. Yes, he says so.

Soc. A wise man is not likely to talk nonsense. Let us try to understand him: the same wind is blowing, and yet one of us may be cold and the other not, or one may be slightly and the other very cold?

Theaet. Quite true.

Soc. Now is the wind, regarded not in relation to us but absolutely, cold or not; or are we to say, with Protagoras, that the wind is cold to him who is cold, and not to him who is not?

Theaet. I suppose the last.

Soc. Then it must appear so to each of them?

Theaet. Yes.

Soc. And "appears to him" means the same as "he perceives."

Theaet. True.

Soc. Then appearing and perceiving coincide in the case of hot and cold, and in similar instances; for things appear, or may be supposed to be, to each one such as he perceives them?

Theaet. Yes.

Soc. Then perception is always of existence, and being the same as knowledge is unerring?

Theaet. Clearly.

Soc. In the name of the Graces, what an almighty wise man Protagoras must have been! He spoke these things in a parable to the common herd, like you and me, but told the truth, "his Truth," in secret to his own disciples.

Theaet. What do you mean, Socrates?

Soc. I am about to speak of a high argument, in which all things are said to be relative; you cannot rightly call anything by any name, such as great or small, heavy or light, for the great will be small and the heavy light—

there is no single thing or quality, but out of motion and change and admixture all things are becoming relatively to one another, which "becoming" is by us incorrectly called being, but is really becoming, for nothing ever is, but all things are becoming. Summon all philosophers—Protagoras Heraclitus, Empedocles, and the rest of them, one after another, and with the exception of Parmenides they will agree with you in this. Summon the great masters of either kind of poetry—Epicharmus, the prince of Comedy, and Homer of Tragedy; when the latter sings of

Ocean whence sprang the gods, and mother Tethys,

does he not mean that all things are the offspring of flux and motion?

Theaet. I think so.

Soc. And who could take up arms against such a great army having Homer for its general, and not appear ridiculous?

Theaet. Who indeed, Socrates?

Soc. Yes, Theaetetus; and there are plenty of other proofs which will show that motion is the source of what is called being and becoming, and inactivity of not-being and destruction; for fire and warmth, which are supposed to be the parent and guardian of all other things, are born of movement and of friction, which is a kind of motion;—is not this the origin of fire?

Theaet. It is.

Soc. And the race of animals is generated in the same way?

Theaet. Certainly.

Soc. And is not the bodily habit spoiled by rest and idleness, but preserved for a long time by motion and exercise?

Theaet. True.

Soc. And what of the mental habit? Is not the soul

informed, and improved, and preserved by study and attention, which are motions; but when at rest, which in the soul only means want of attention and study, is uninformed, and speedily forgets whatever she has learned?

Theaet. True.

Soc. Then motion is a good, and rest an evil, to the soul as well as to the body?

Theaet. Clearly.

Soc. I may add, that breathless calm, stillness and the like waste and impair, while wind and storm preserve; and the palmary argument of all, which I strongly urge, is the golden chain in Homer, by which he means the sun, thereby indicating that so long as the sun and heavens go round in their orbits, all things human and divine are and are preserved, but if they were chained up and their motions ceased, then all things would be destroyed, and, as the saying is, turned upside down.

Theaet. I believe, Socrates, that you have truly explained his meaning.

Soc. Then now apply his doctrine to perception, my good friend, and first of all to vision; that which you call white color is not in your eyes, and is not a distinct thing which exists out of them. And you must not assign any place to it: for if it had position it would be, and be at rest, and there would be no process of becoming.

Theaet. Then what is color?

Soc. Let us carry out the principle which has just been affirmed, that nothing is self-existent, and then we shall see that white, black, and every other color, arises out of the eye meeting the appropriate motion, and that what we call a color is in each case neither the active nor the passive element, but something which passes between them, and is peculiar to each percipient; are you quite certain that the several colors appear to a dog or to any animal whatever as they appear to you?

Theaet. Far from it.

Soc. Or that anything appears the same to you as to another man? Are you so profoundly convinced of this? Rather would it not be true that it never appears exactly the same to you, because you are never exactly the same?

Theaet. The latter.

Soc. And if that with which I compare myself in size, or which I apprehend by touch, were great or white or hot, it could not become different by mere contact with another unless it actually changed; nor again, if the comparing or apprehending subject were great or white or hot, could this, when unchanged from within, become changed by any approximation or affection of any other thing? The fact is that in our ordinary way of speaking we allow ourselves to be driven into most ridiculous and wonderful contradictions, as Protagoras and all who take his line of argument would remark.

Theaet. How? and of what sort do you mean?

Soc. A little instance will sufficiently explain my meaning: Here are six dice, which are more by a half when compared with four, and fewer by a half than twelve—they are more and also fewer. How can you or any one maintain the contrary?

Theaet. Very true.

Soc. Well, then, suppose that Protagoras or some one asks whether anything can become greater or more if not by increasing, how would you answer him, Theaetetus?

Theaet. I should say "No," Socrates, if I were to speak my mind in reference to this last question, and if I were not afraid of contradicting my former answer.

Soc. Capital! excellent! spoken like an oracle, my boy! and if you reply "Yes," there will be a case for Euripides; for our tongue will be convinced, but not our mind.

Theaet. Very true.

Soc. The thoroughbred Sophists, who know all that can

be known about the mind, and argue only out of the superfluity of their wits, would have had a regular sparring-match over this, and would have knocked their arguments together finely. But you and I, who have no professional aims, only desire to see what is the mutual relation of these principles,—whether they are consistent with each other or not.

Theaet. Yes, that would be my desire.

Soc. And mine too. But since this is our feeling, and there is plenty of time, why should we not calmly and patiently review our own thoughts, and thoroughly examine and see what these appearances in us really are? If I am not mistaken, they will be described by us as follows:—first, that nothing can become greater or less, either in number or magnitude, while remaining equal to itself—you would agree?

Theaet. Yes.

Soc. Secondly that without addition or subtraction there is no increase or diminution of anything, but only equality.

Theaet. Quite true.

Soc. Thirdly, that what was not before cannot be afterwards, without becoming and having become.

Theaet. Yes, truly.

Soc. These three axioms, if I am not mistaken, are fighting with one another in our minds in the case of the dice, or, again, in such a case as this—if I were to say that I, who am of a certain height and taller than you, may within a year, without gaining or losing in height, be not so tall—not that I should have lost, but that you would have increased. In such a case, I am afterwards what I once was not, and yet I have not become; for I could not have become without becoming, neither could I have become less without losing somewhat of my height; and I could give you ten thousand examples of similar contradictions, if we admit them at all. I believe that you follow

me, Theaetetus; for I suspect that you have thought of these questions before now.

Theaet. Yes, Socrates, and I am amazed when I think of them; by the gods I am! and I want to know what on earth they mean; and there are times when my head quite swims with the contemplation of them.

Soc. I see, my dear Theaetetus, that Theodorus had a true insight into your nature when he said that you were a philosopher, for wonder is the feeling of a philosopher, and philosophy begins in wonder. He was not a bad genealogist who said that Iris (the messenger of heaven) is the child of Thaumas (wonder). But do you begin to see what is the explanation of this perplexity on the hypothesis which we attribute to Protagoras?

Theaet. Not as yet.

Soc. Then you will be obliged to me if I help you to unearth the hidden "truth" of a famous man or school.

Theaet. To be sure, I shall be very much obliged.

Soc. Take a look round, then, and see that none of the uninitiated are listening. Now by the uninitiated I mean the people who believe in nothing but what they can grasp in their hands, and who will not allow that action or generation or anything invisible can have real existence.

Theaet. Yes, indeed, Socrates, they are very hard and impenetrable mortals.

Soc. Yes, my boy, outer barbarians. Far more ingenious are the brethren whose mysteries I am about to reveal to you. Their first principle is, that all is motion, and upon this all the affections of which we were just now speaking are supposed to depend: there is nothing but motion, which has two forms, one active and the other passive, both in endless number; and out of the union and friction of them there is generated a progeny endless in number, having two forms, sense and the object of sense, which are ever breaking forth and coming to the birth at

the same moment. The senses are variously named hearing, seeing, smelling; there is the sense of heat, cold, pleasure, pain, desire, fear, and many more which have names, as well as innumerable others which are without them; each has its kindred object,—each variety of color has a corresponding variety of sight, and so with sound and hearing, and with the rest of the senses and the objects akin to them. Do you see, Theaetetus, the bearings of this tale on the preceding argument?

Theaet. Indeed I do not.

Soc. Then attend, and I will try to finish the story. The purport is that all these things are in motion, as I was saying, and that this motion is of two kinds, a slower and a quicker; and the slower elements have their motions in the same place and with reference to things near them, and so they beget; but what is begotten is swifter, for it is carried to and fro, and moves from place to place. Apply this to sense:—When the eye and the appropriate object meet together and give birth to whiteness and the sensation connatural with it, which could not have been given by either of them going elsewhere, then, while the sight is flowing from the eye, whiteness proceeds from the object which combines in producing the color; and so the eye is fulfilled with sight, and really sees, and becomes, not sight, but a seeing eye; and the object which combined to form the color is fulfilled with whiteness, and becomes not whiteness but a white thing, whether wood or stone or whatever the object may be which happens to be colored white. And this is true of all sensible objects, hard, warm, and the like, which are similarly to be regarded, as I was saying before, not as having any absolute existence, but as being all of them of whatever kind generated by motion in their intercourse with one another; for of the agent and patient, as existing in separation, no trustworthy conception, as they say, can be formed, for the agent has

no existence until united with the patient, and the patient has no existence until united with the agent; and that which by uniting with something becomes an agent, by meeting with some other thing is converted into a patient. And from all these considerations, as I said at first, there arises a general reflection, that there is no self-existent thing, but everything is becoming and in relation; and being must be altogether abolished, although from habit and ignorance we are compelled even in this discussion to retain the use of the term. But the great philosophers tell us that we are not to allow either the word "something," or "belonging to something," or "to me," or "this" or "that" or any other detaining name to be used; in the language of nature all things are being created and destroyed, coming into being and passing into new forms; nor can any name fix or detain them; he who attempts to fix or detain them is easily refuted. And this should be the way of speaking, not only of particulars but of aggregates; such aggregates as are expressed in the word "man," or "stone," or any name of an animal or of a class.

2. The Superiority of Persuasiveness over Knowledge

The statement of this doctrine is also from Plato. But like that of the Protagoras it appears to be a fair one, and is the most nearly contemporary which we possess:[2]

Gor. I like your way of leading us on, Socrates, and I will endeavor to reveal to you the whole nature of rhetoric. You must have heard, I think, that the docks and the walls of the Athenians and the plan of the harbor were devised in accordance with the counsels, partly of Themistocles, and partly of Pericles, and not at the suggestion of the builders.

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2 Plato, *Gorgias*, 455d–459c; from Jowett, *op. cit.*

Gorgias (5th century), a Sicilian, orator and sophist, was one of the earliest writers on rhetoric. His philosophic theories were based on Eleatic doctrine.

Soc. Such is the tradition, Gorgias, about Themistocles; and I myself heard the speech of Pericles when he advised us about the middle wall.

Gor. And you will observe, Socrates, that when a decision has to be given in such matters the rhetoricians are the advisers; they are the men who win their point.

Soc. I had that in my admiring mind, Gorgias, when I asked what is the nature of rhetoric, which always appears to me, when I look at the matter in this way, to be a marvel of greatness.

Gor. A marvel, indeed, Socrates, if you only knew how rhetoric comprehends and holds under her sway all the inferior arts. Let me offer you a striking example of this. On several occasions I have been with my brother Herodicus or some other physician to see one of his patients, who would not allow the physician to give him medicine, or apply the knife or hot iron to him; and I have persuaded him to do for me what he would not do for the physician just by the use of rhetoric. And I say that if a rhetorician and a physician were to go to any city, and had there to argue in the Ecclesia or any other assembly as to which of them should be elected state-physician, the physician would have no chance; but he who could speak would be chosen if he wished; and in a contest with a man of any other profession the rhetorician more than any one would have the power of getting himself chosen, for he can speak more persuasively to the multitude than any of them, and on any subject. Such is the nature and power of the art of rhetoric! And yet, Socrates, rhetoric should be used like any other competitive art, not against everybody,—the rhetorician ought not to abuse his strength any more than a pugilist or pancratiast or other master of fence;—because he has powers which are more than a match either for friend or enemy, he ought not therefore to strike, stab, or slay his friends. Suppose a man to have

been trained in the palestra and to be a skillful boxer,—he in the fullness of his strength goes and strikes his father or mother or one of his familiars or friends; but that is no reason why the trainers or fencing-masters should be held in detestation or banished from the city;—surely not. For they taught their art for a good purpose, to be used against enemies and evil-doers, in self-defence not in aggression, and others have perverted their instructions, and turned to a bad use their own strength and skill. But not on this account are the teachers bad, neither is the art in fault, or bad in itself; I should rather say that those who make a bad use of the art are to blame. And the same argument holds good of rhetoric; for the rhetorician can speak against all men and upon any subject,—in short, he can persuade the multitude better than any other man of anything which he pleases, but he should not therefore seek to defraud the physician or any other artist of his reputation merely because he has the power; he ought to use rhetoric fairly, as he would also use his athletic powers. And if after having become a rhetorician he makes a bad use of his strength and skill, his instructor surely ought not on that account to be held in detestation or banished. For he was intended by his teacher to make good use of his instructions, but he abuses them. And therefore he is the person who ought to be held in detestation, banished, and put to death, and not his instructor.

Soc. You, Gorgias, like myself, have had great experience of disputations, and you must have observed, I think, that they do not always terminate in mutual edification, or in the definition by either party of the subjects which they are discussing; but disagreements are apt to arise—somebody says that another has not spoken truly or clearly; and then they get into a passion and begin to quarrel, both parties conceiving that their opponents are arguing from personal feeling only and jealousy of themselves, not from

any interest in the question at issue. And sometimes they will go on abusing one another until the company at last are quite vexed at themselves for ever listening to such fellows. Why do I say this? Why, because I cannot help feeling that you are now saying what is not quite consistent or accordant with what you were saying at first about rhetoric. And I am afraid to point this out to you, lest you should think that I have some animosity against you, and that I speak, not for the sake of discovering the truth, but from jealousy of you. Now if you are one of my sort, I should like to cross-examine you, but if not I will let you alone. And what is my sort? you will ask. I am one of those who are very willing to be refuted if I say anything which is not true, and very willing to refute any one else who says what is not true, and quite as ready to be refuted as to refute; for I hold that this is the greater gain of the two, just as the gain is the greater of being cured of a very great evil than of curing another. For I imagine that there is no evil which a man can endure so great as an erroneous opinion about the matters of which we are speaking; and if you claim to be one of my sort, let us have the discussion out, but if you would rather have done, no matter;—let us make an end of it.

Gor. I should say, Socrates, that I am quite the man whom you indicate; but, perhaps, we ought to consider the audience, for, before you came, I had already given a long exhibition, and if we proceed the argument may run on to great length. And therefore I think that we should consider whether we may not be detaining some part of the company when they are wanting to do something else.

Chaerephon. You hear the audience cheering, Gorgias and Socrates, which shows their desire to listen to you; and for myself, Heaven forbid that I should have any business on hand which would take me away from a discussion so interesting and so ably maintained.

Callicles. By the gods, Chaerephon, although I have been present at many discussions, I doubt whether I was ever so much delighted before, and therefore if you go on discoursing all day I shall be the better pleased.

Soc. I may truly say, Callicles, that I am willing, if Gorgias is.

Gor. After all this, Socrates, I should be disgraced if I refused, especially as I have promised to answer all comers; in accordance with the wishes of the company, then, do you begin, and ask me any question which you like.

Soc. Let me tell you then, Gorgias, what surprises me in your words; though I dare say that you may be right, and I may have misunderstood your meaning. You say that you can make any man who will learn of you, a rhetorician?

Gor. Yes.

Soc. Do you mean that you will teach him to gain the ears of the multitude on any subject, and this not by instruction but by persuasion?

Gor. Quite so.

Soc. You were saying, in fact, that the rhetorician will have greater powers of persuasion than the physician even in a matter of health?

Gor. Yes, with the multitude,—that is.

Soc. You mean to say, with the ignorant; for with those who know he cannot be supposed to have greater powers of persuasion.

Gor. Very true.

Soc. But if he is to have more power of persuasion than the physician, he will have greater power than he who knows?

Gor. Certainly.

Soc. Although he is not a physician—is he?

Gor. No.

Soc. And he who is not a physician must, obviously, be ignorant of what the physician knows.

Gor. Clearly.

Soc. Then, when the rhetorician is more persuasive than the physician, the ignorant is more persuasive with the ignorant than he who has knowledge?—is not that the inference?

Gor. In the case supposed:—yes.

Soc. And the same holds of the relation of rhetoric to all the other arts; the rhetorician need not know the truth about things; he has only to discover some way of persuading the ignorant that he has more knowledge than those who know?

Gor. Yes, Socrates, and is not this a great comfort—not to have learned the other arts, but the art of rhetoric only, and yet to be in no way inferior to the professors of them?

3. Later Greek Skepticism

The *ten tropes* are the ten fundamental modes of thought by which one is led to Skepticism. They are thus defined by Sextus Empiricus:[3]

They are these: The first is based upon the differences in animals; the second upon the differences in men; the third upon the difference in the constitution of the organs of sense; the fourth upon circumstances; the fifth upon position, distance, and place; the sixth upon mixtures; the seventh upon the quantity and constitution of objects; the eighth upon relation; the ninth upon frequency or

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[3] Patrick, Mary M., *Sextus Empiricus and Greek Scepticism*, pp. 112, 113, 114–118 (Deighton, Bell & Co., 1899); reprinted by permission.

Sextus Empiricus (fl. 200? A.D.), a physician, of Alexandria and Athens, represents the later Skepticism of Greece. His *Pyrrhonic Sketches*, or *Outlines of the Philosophy of Pyrrho*, are one of the most important sources of our knowledge of Skepticism, and of other historical items of information.

rarity of occurrences; the tenth upon systems, customs, laws, mythical beliefs, and dogmatic opinions. We make this order ourselves. These Tropes come under three general heads: the standpoint of the judge, the standpoint of the thing judged, and the standpoint of both together. . . .

It is probable therefore, that the inequalities and differences in origin cause great antipathies, in the animals, and the result is incompatibility, discord, and conflict between the sensations of the different animals. Again, the differences in the principal parts of the body, especially in those fitted by nature to judge and to perceive, may cause the greatest differences in their ideas of objects, according to the differences in the animals themselves. As for example, those who have the jaundice call that yellow which appears to us white, and those who have bloodshot eyes call it blood-red. Accordingly, as some animals have yellow eyes, and others blood-shot ones, and still others whitish ones, and others eyes of other colors, it is probable, I think, that they have a different perception of colors. Furthermore, when we look steadily at the sun for a long time, and then look down at a book, the letters seem to us gold colored, and dance around. Now some animals have by nature a luster in their eyes, and these emit a fine and sparkling light so that they see at night, and we may reasonably suppose that external things do not appear the same to them as to us. Jugglers by lightly rubbing the wick of the lamp with metal rust, or with the dark yellow fluid of the sepia, make those who are present appear now copper colored and now black, according to the amount of the mixture used; if this be so, it is much more reasonable to suppose that because of the mixture of different fluids in the eyes of animals, their ideas of objects would be different. Furthermore, when we press the eye on the side, the figures, forms and sizes of things seen appear elongated and narrow. It is, therefore, probable that such

animals as have the pupil oblique and long, as goats, cats, and similar animals, have ideas different from those of the animals which have a round pupil. Mirrors according to their different construction, sometimes show the external object smaller than reality, as concave ones, and sometimes long and narrow, as the convex ones do; others show the head of the one looking into it down, and the feet up. As some of the vessels around the eye fall entirely outside the eye, on account of their protuberance, while others are more sunken, and still others are placed in an even surface, it is probable that for this reason also the ideas vary, and dogs, fishes, lions, men and grasshoppers do not see the same things, either of the same size, or of similar form, but according to the impression on the organ of sight of each animal respectively. The same thing is true in regard to the other senses; for how can it be said that shell-fish, birds of prey, animals covered with spines, those with feathers and those with scales would be affected in the same way by the sense of touch? And how can the sense of hearing perceive alike in animals which have the narrowest auditory passages, and in those that are furnished with the widest, or in those with hairy ears and those with smooth ones? For we, even, hear differently when we partially stop up the ears, from what we do when we use them naturally. The sense of smell also varies according to differences in animals, since even our sense of smell is affected when we have taken cold and the phlegm is too abundant, and also parts around our head are flooded with too much blood, for we then avoid odors that seem agreeable to others, and feel as if we were injured by them. Since also some of the animals are moist by nature and full of secretions, and still others have either yellow or black bile prevalent and abundant, it is reasonable because of this to think that odorous things appear different to each one of them. And it is the same in regard to things of

taste, as some animals have the tongue rough and dry and others very moist. We too, when we have a dry tongue in fever, think that whatever we take is gritty, bad tasting, or bitter; and this we experience because of the varying degrees of the humors that are said to be in us. Since, then, different animals have different organs for taste, and a greater or less amount of the various humors, it can well be that they form different ideas of the same objects as regards their taste. For just as the same food on being absorbed becomes in some places veins, in other places arteries, and in other places bones, nerves, or other tissues, showing different power according to the difference of the parts receiving it; just as the same water absorbed by the trees becomes in some places bark, in other places branches, and in other places fruit, perhaps a fig or a pomegranate, or something else; just as the breath of the musician, one and the same when blown into the flute, becomes sometimes a high tone and sometimes a low one, and the same pressure of the hand upon the lyre sometimes causes a deep tone and sometimes a high tone, so it is natural to suppose that external objects are regarded differently according to the different constitution of the animals which perceive them. We may see this more clearly in the things that are sought for and avoided by animals. For example, myrrh appears very agreeable to men and intolerable to beetles and bees. Oil also, which is useful to men, destroys wasps and bees if sprinkled on them; and sea-water, while it is unpleasant and poisonous to men if they drink it, is most agreeable and sweet to fishes. Swine also prefer to wash in vile filth rather than in pure clean water. Futhermore, some animals eat grass and some eat herbs; some live in the woods, others eat seeds; some are carnivorous, and others lactivorous; some enjoy putrefied food, and others fresh food; some raw food, and others that which is prepared by cooking; and in general that which is agree-

able to some is disagreeable and fatal to others, and should be avoided by them. Thus hemlock makes the quail fat, and henbane the hogs, and these, as it is known, enjoy eating lizards; deer also eat poisonous animals, and swallows, the cantharidae. Moreover, ants and flying ants, when swallowed by men, cause discomfort and colic; but the bear, on the contrary, whatever sickness he may have, becomes stronger by devouring them. The viper is benumbed if one twig of the oak touches it, as is also the bat by a leaf of the plane tree. The elephant flees before the ram, and the lion before the cock, and seals from the rattling of beans that are being pounded, and the tiger from the sound of the drum. Many other examples could be given, but that we may not seem to dwell longer than is necessary on this subject, we conclude by saying that since the same things are pleasant to some and unpleasant to others, and the pleasure and displeasure depend on the ideas, it must be that different animals have different ideas of objects. And since the same things appear different according to the difference in the animals, it will be possible for us to say how the external object appears to us, but as to how it is in reality we shall suspend our judgment. For we cannot ourselves judge between our own ideas and those of other animals, being ourselves involved in the difference, and therefore much more in need of being judged than being ourselves able to judge. And furthermore, we cannot give the preference to our own mental representations over those of other animals, either without evidence or with evidence, for besides the fact that perhaps there is no evidence, as we shall show, the evidence so called will be either manifest to us or not. If it is not manifest to us, then we cannot accept it with conviction; if it is manifest to us, since the question is in regard to what is manifest to animals, and we use as evidence that which is manifest to us who are animals, then it is to be ques-

tioned if it is true as it is manifest to us. It is absurd, however, to try to base the questionable on the questionable, because the same thing is to be believed and not to be believed, which is certainly impossible. The evidence is to be believed in so far as it will furnish a proof, and disbelieved in so far as it is itself to be proved. We shall therefore have no evidence according to which we can give preference to our own ideas over those of so-called irrational animals. Since, therefore, ideas differ according to the difference in animals, and it is impossible to judge them, it is necessary to suspend the judgment in regard to external objects.

CHAPTER VI

THE PERSONALITY, MISSION AND INFLUENCE OF SOCRATES

1. Socrates' Statement of the Causes of His Indictment

This account is from the writings of Plato, and, while viewed through his eyes, it is nevertheless the statement of one whose appreciation of his master cannot be surpassed. It is accepted as virtually the account of an eyewitness:[1]

I will begin at the beginning, and ask what is the occasion which has given rise to the slander of me, and in fact has encouraged Meletus to prefer this charge against me. Well, what do the slanderers say? They shall be my prosecutors, and I will sum up their words in an affidavit: "Socrates is an evil-doer, and a curious person, who searches into things under the earth and in heaven, and he makes the worse appear the better cause; and he teaches the aforesaid doctrines to others." Such is the nature of the accusation: it is just what you have yourselves seen in the comedy of Aristophanes, who has introduced a man whom he calls Socrates, going about and saying that he walks in air, and talking a deal of nonsense concerning matters of which I do not pretend to know either much or

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[1] Plato, *Apology*, 19b–23c; from Jowett, *op. cit.*

Socrates (469–399) of Athens, was a man of humble birth. His father was a sculptor, his mother a midwife, and he also took up the trade of his father. But he became known for his inquiring spirit and for his conversations with the professedly learned of his day. His work was confused with that of the Sophists by many of his contemporaries, and he was compelled to drink the hemlock. He inspired Plato to his thinking and thus became an enduring influence in philosophy.

little—not that I mean to speak disparagingly of any one who is a student of natural philosophy. I should be very sorry if Meletus could bring so grave a charge against me. But the simple truth is, O Athenians, that I have nothing to do with physical speculations. Very many of those here present are witnesses to the truth of this, and to them I appeal. Speak, then, you who have heard me, and tell your neighbors whether any of you have ever known me hold forth in few words or in many upon such matters. . . . You hear their answer. And from what they say of this part of the charge you will be able to judge of the truth of the rest.

As little foundation is there for the report that I am a teacher, and take money; this accusation has no more truth in it than the other. Although, if a man were really able to instruct mankind, to receive money for instruction would, in my opinion, be an honor to him. There is Gorgias of Leontium and Prodicus of Ceos, and Hippias of Elis, who go the round of the cities, and are able to persuade the young men to leave their own citizens by whom they might be taught for nothing, and come to them whom they not only pay, but are thankful if they may be allowed to pay them. There is at this time a Parian philosopher residing in Athens, of whom I have heard; and I came to hear of him in this way:—I came across a man who has spent a world of money on the Sophists, Callias, the son of Hipponicus, and knowing that he had sons, I asked him: "Callias," I said, "if your two sons were foals or calves, there would be no difficulty in finding some one to put over them; we should hire a trainer of horses, or a farmer probably, who would improve and perfect them in their own proper virtue and excellence; but as they are human beings, whom are you thinking of placing over them? Is there any one who understands human and political virtue? You must have thought about the matter, for you have

sons; is there any one?" "There is," he said. "Who is he?" said I; "and of what country? and what does he charge?" "Evenus the Parian," he replied; "he is the man, and his charge is five minae." Happy is Evenus, I said to myself, if he really has this wisdom, and teaches at such a moderate charge. Had I the same, I should have been very proud and conceited; but the truth is that I have no knowledge of the kind.

I dare say, Athenians, that some one among you will reply, "Yes, Socrates, but what is the origin of these accusations which are brought against you; there must have been something strange which you have been doing? All these rumors and this talk about you would never have arisen if you had been like other men; tell us, then, what is the cause of them, for we should be sorry to judge hastily of you." Now I regard this as a fair challenge, and I will endeavor to explain to you the reason why I am called wise and have such an evil fame. Please to attend then. And although some of you may think that I am joking, I declare that I will tell you the entire truth. Men of Athens, this reputation of mine has come of a certain sort of wisdom which I possess. If you ask me what kind of wisdom, I reply, wisdom such as may perhaps be attained by man, for to that extent I am inclined to believe that I am wise; whereas the persons of whom I was speaking have a superhuman wisdom, which I may fail to describe, because I have it not myself; and he who says that I have, speaks falsely, and is taking away my character. And here, O men of Athens, I must beg you not to interrupt me, even if I seem to say something extravagant. For the word which I will speak is not mine. I will refer you to a witness who is worthy of credit; that witness shall be the God of Delphi—he will tell you about my wisdom, if I have any, and of what sort it is. You must have known Chaerephon; he was early a friend of mine, and also a

friend of yours, for he shared in the recent exile of the people, and returned with you. Well, Chaerephon, as you know, was very impetuous in all his doings, and he went to Delphi and boldly asked the oracle to tell him whether —as I was saying, I must beg you not to interrupt—he asked the oracle to tell him whether any one was wiser than I was, and the Pythian prophetess answered that there was no man wiser. Chaerephon is dead himself; but his brother, who is in court, will confirm the truth of what I am saying.

Why do I mention this? Because I am going to explain to you why I have such an evil name. When I heard the answer, I said to myself, what can the god mean? and what is the interpretation of his riddle? for I know that I have no wisdom small or great. What then can he mean when he says that I am the wisest of men? And yet he is a god and cannot lie; that would be against his nature. After long consideration, I thought of a method of trying the question. I reflected that if I could only find a man wiser than myself, then I might go to the god with a refutation in my hand. I should say to him, "Here is a man who is wiser than I am; but you said that I was the wisest." Accordingly I went to one who had the reputation of wisdom, and observed him—his name I need not mention; he was a politician whom I selected for examination—and the result was as follows: When I began to talk with him, I could not help thinking that he was not really wise, although he was thought wise by many, and still wiser by himself; and thereupon I tried to explain to him that he thought himself wise, but was not really wise; and the consequence was that he hated me, and his enmity was shared by several who were present and heard me. So I left him, saying to myself, as I went away: Well, although I do not suppose that either of us knows anything really beautiful and good, I am better off than he is,—for he

knows nothing, and thinks that he knows; I neither know nor think that I know. In this latter particular, then, I seem to have slightly the advantage of him. Then I went to another who had still higher pretensions to wisdom, and my conclusion was exactly the same. Whereupon I made another enemy of him, and of many others besides him.

Then I went to one man after another, being not unconscious of the enmity which I provoked, and I lamented and feared this: but necessity was laid upon me,—the word of God, I thought ought to be considered first. And I said to myself, Go I must to all who appear to know, and find out the meaning of the oracle. And I swear to you, Athenians, by the dog I swear!—for I must tell you the truth—the result of my mission was just this: I found that the men most in repute were all but the most foolish; and that others less esteemed were really wiser and better. I will tell you the tale of my wanderings and of the "Herculean" labors, as I may call them, which I endured only to find at last the oracle irrefutable. After the politicians, I went to the poets; tragic, dithyrambic, and all sorts. And there, I said to myself, you will be instantly detected; now you will find out that you are more ignorant than they are. Accordingly, I took them some of the most elaborate passages in their own writings, and asked what was the meaning of them—thinking that they would teach me something. Will you believe me? I am almost ashamed to confess the truth, but I must say that there is hardly a person present who would not have talked better about their poetry than they did themselves. Then I knew that not by wisdom do poets write poetry, but by a sort of genius and inspiration; they are like diviners or soothsayers who also say many fine things, but do not understand the meaning of them. The poets appeared to me to be much in the same case; and I further observed that upon the strength of their poetry they believed themselves

to be the wisest of men in other things in which they were not wise. So I departed, conceiving myself to be superior to them for the same reason that I was superior to the politicians.

At last I went to the artisans, for I was conscious that I knew nothing at all, as I may say, and I was sure that they knew many fine things; and here I was not mistaken, for they did know many things of which I was ignorant, and in this they certainly were wiser than I was. But I observed that even the good artisan fell into the same error as the poets;—because they were good workmen they thought that they also knew all sorts of high matters, and this defect in them overshadowed their wisdom; and therefore I asked myself on behalf of the oracle, whether I would like to be as I was, neither having their knowledge nor their ignorance, or like them in both; and I made answer to myself and to the oracle that I was better off as I was.

This inquisition has led to my having many enemies of the worst and most dangerous kind, and has given occasion to many calumnies. And I am called wise, for my hearers always imagine that I myself possess the wisdom which I find wanting in others: but the truth is, O men of Athens, that God only is wise; and by his answer he intends to show that the wisdom of men is worth little or nothing; he is not speaking of Socrates, he is only using my name by way of illustration, as if he said, He, O men, is the wisest, who, like Socrates, knows that his wisdom is in truth worth nothing. And so I go about the world, obedient to the god, and search and make enquiry into the wisdom of any one, whether citizen or stranger, who appears to be wise; and if he is not wise, then in vindication of the oracle I show him that he is not wise; and my occupation quite absorbs me, and I have no time to give either to any public matter of interest or to any concern of my own,

but I am in utter poverty by reason of my devotion to the god.

2. The Socratic Maieutic

This passage is a typical expression of the view of Socrates regarding instruction as a process of drawing out of the mind its own implicit ideas:[2]

Theaet. I can assure you, Socrates, that I have tried very often, when the report of questions asked by you was brought to me; but I can neither persuade myself that I have a satisfactory answer to give, nor hear of any one who answers as you would have him; and I cannot shake off a feeling of anxiety.

Soc. These are the pangs of labor, my dear Theaetetus; you have something within you which you are bringing to the birth.

Theaet. I do not know, Socrates; I only say what I feel.

Soc. And have you never heard, simpleton, that I am the son of a midwife, brave and burly, whose name was Phaenarete?

Theaet. Yes, I have.

Soc. And that I myself practice midwifery?

Theaet. No, never.

Soc.[3] Well, my art of midwifery is in most respects like theirs; but differs, in that I attend men and not women, and I look after their souls when they are in labor, and not after their bodies: and the triumph of my art is in thoroughly examining whether the thought which the mind of the young man brings forth is a false idol or a noble and true birth. And like the midwives, I am barren, and the reproach which is often made against me, that I ask questions of others and have not the wit to answer them myself, is very just—the reason is, that the god compels me

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[2] Plato, *Theaetetus,* 148–149a; from Jowett, *op. cit.*
[3] *Ibid.,* 150c–151d.

to be a midwife, but does not allow me to bring forth. And therefore I am not myself at all wise, nor have I anything to show which is the invention or birth of my own soul, but those who converse with me profit. Some of them appear dull enough at first, but afterwards, as our acquaintance ripens, if the god is gracious to them, they all make astonishing progress; and this is in the opinion of others as well as in their own. It is quite clear that they never learned anything from me; the many fine discoveries to which they cling are of their own making. But to me and the god they owe their delivery. And the proof of my words is, that many of them in their ignorance, either in their self-conceit despising me, or falling under the influence of others, have gone away too soon; and have not only lost the children of whom I had previously delivered them by an ill bringing up, but have stifled whatever else they had in them by evil communications, being fonder of lies and shams than of the truth; and they have at last ended by seeing themselves, as others see them, to be great fools. Aristides, the son of Lysimachus, is one of them, and there are many others. The truants often return to me, and beg that I would consort with them again—they are ready to go to me on their knees—and then, if my familiar allows, which is not always the case, I receive them, and they begin to grow again. Dire are the pangs which my art is able to arouse and to allay in those who consort with me, just like the pangs of women in childbirth; night and day they are full of perplexity and travail which is even worse than that of the women. So much for them. And there are others, Theaetetus, who come to me apparently having nothing in them; and as I know that they have no need of my art, I coax them into marrying some one, and by the grace of God I can generally tell who is likely to do them good. Many of them I have given away to Prodicus, and many to other inspired sages. I

tell you this long story, friend Theaetetus, because I suspect, as indeed you seem to think yourself, that you are in labor—great with some conception. Come then to me,—who am a midwife's son and myself a midwife, and do your best to answer the questions which I will ask you. And if I abstract and expose your first-born, because I discover upon inspection that the conception which you have formed is a vain shadow, do not quarrel with me on that account, as the manner of women is when their first children are taken from them. For I have actually known some who were ready to bite me when I deprived them of a darling folly; they did not perceive that I acted from goodwill, not knowing that no god is the enemy of man—that was not within the range of their ideas; neither am I their enemy in all this, but it would be wrong for me to admit falsehood, or to stifle the truth. Once more, then, Theaetetus, I repeat my old question, "What is knowledge?"—and do not say that you cannot tell; but quit yourself like a man, and by the help of God you will be able to tell.

Theaet. At any rate, Socrates, after such an exhortation I should be ashamed of not trying to do my best.

3. The Fundamental Value of Human Life

Plato here represents Socrates as discussing the central problem of ethics and setting forth what he regards as the keynote to the solution:[4]

Has your property, Cephalus, been chiefly inherited or acquired?

Have I acquired it, do you say, Socrates? Why, in the conduct of money matters, I stand midway between my grandfather and my father. My grandfather, whose name I bear, inherited nearly as much property as I now possess, and increased it till it was many times as large;

[4] Plato, *Republic,* Book I, 330b–332; from Davies and Vaughan, *op. cit.*

while my father Lysanias brought it down even below what it now is. For my part, I shall be content to leave it to these my sons not less, but if anything rather larger, than it was when it came into my hands.

I asked the question, I said, because you seemed to me to be not very fond of money: which is generally the case with those who have not made it themselves; whereas those who have made it, are twice as much attached to it as other people. For just as poets love their own works, and fathers their own children, in the same way those who have created a fortune value their money, not merely for its uses, like other persons, but because it is their own production. This makes them moreover disagreeable companions, because they will praise nothing but riches.

It is true, he replied.

Indeed it is, said I. But let me ask you one more question. What do you think is the greatest advantage that you have derived from being wealthy?

If I mention it, he replied, I shall perhaps get few persons to agree with me. Be assured, Socrates, that when a man is nearly persuaded that he is going to die, he feels alarmed and concerned about things which never affected him before. Till then he has laughed at those stories about the departed, which tell us that he who has done wrong here must suffer for it in the other world; but now his mind is tormented with a fear that these stories may possibly be true. And either owing to the infirmity of old age, or because he is now nearer to the confines of the future state, he has clearer insight into those mysteries. However that may be, he becomes full of misgiving and apprehension, and sets himself to the task of calculating and reflecting whether he has done any wrong to any one. Hereupon, if he finds his life full of unjust deeds, he is apt to start out of sleep in terror, as children do, and he lives haunted by gloomy anticipations. But if his con-

science reproaches him with no injustice, he enjoys the abiding presence of sweet Hope, that "kind nurse of old age," as Pindar calls it. For indeed, Socrates, those are beautiful words of his, in which he says of the man who has lived a just and holy life, "Sweet Hope is his companion, cheering his heart, the nurse of age,—Hope, which, more than aught else, steers the capricious will of mortal men." There is really a wonderful truth in this description. And it is this consideration, as I hold, that makes riches chiefly valuable, I do not say to everybody, but at any rate to the good. For they contribute greatly to our preservation from even unintentional deceit or falsehood, and from that alarm which would attend our departure to the other world, if we owed any sacrifices to a god, or any money to a man. They have also many other uses. But after weighing them all separately, Socrates, I am inclined to consider this service as anything but the least important which riches can render to a wise and sensible man.

You have spoken admirably, Cephalus. But what are we to understand by that very quality, justice, to which you refer? Are we to define it as neither more nor less than veracity and restitution of what one man has received from another; or is it possible for actions of this very nature to be sometimes just and sometimes unjust? For example, every one, I suppose, would admit, that, if a man, while in the possession of his senses, were to place dangerous weapons in the hands of a friend, and afterwards in a fit of madness to demand them back, such a deposit ought not to be restored, and that his friend would not be a just man if he either returned the weapons, or consented to tell the whole truth to one so circumstanced.

You are right, he replied.

Then it is no true definition of justice to say that it consists in speaking the truth and restoring what one has received.

Nay but it is, Socrates, said Polemarchus, interposing, at least if we are at all to believe Simonides.

Very well, said Cephalus, I will just leave the discussion to you. It is time for me to attend to the sacrifices.

Then Polemarchus inherits your share in it, does he not? I asked.

Certainly, he replied, with a smile; and immediately, withdrew to the sacrifices.

Answer me then, I proceeded, you that are the heir to the discussion;—What do you maintain to be the correct account of justice, as given by Simonides?

That to restore to each man what is his due, is just. To me it seems that Simonides is right in giving this account of the matter.

Well, certainly it is not an easy matter to disbelieve Simonides; for he is a wise and inspired man. But what he means by his words, you, Polemarchus, may perhaps understand, though I do not. It is clear that he does not mean what we were saying just now, namely, that property given by one person in trust to another, is to be returned to the donor, if he asks for it in a state of insanity. And yet I conclude that property given in trust is due to the truster. Is it not?

Yes, it is. . . .

We[5] are debating no trivial question, but the manner in which a man ought to live.

Pray consider it.

I will. Tell me, do you think there is such a thing as a horse's function?

I do.

Would you, then, describe the function of a horse, or of anything else whatever, as that work, for the accomplishment of which it is either the sole or the best instrument?

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[5] *Ibid.*, 352d–354.

I do not understand.

Look at it this way. Can you see with anything besides eyes?

Certainly not.

Can you hear with anything besides ears?

No.

Then should we not justly say that seeing and hearing are the functions of these organs?

Yes, certainly.

Again, you might cut off a vine-shoot with a carving knife, or chisel, or many other tools?

Undoubtedly.

But with no tool, I imagine, so well as with the pruning knife made for the purpose.

True.

Then shall we not define pruning to be the function of the pruning knife?

By all means.

Now then, I think, you will better understand what I wished to learn from you just now, when I asked whether the function of a thing is not that work for the accomplishment of which it is either the sole or the best instrument?

I do understand, and I believe that this is in every case the function of a thing.

Very well: do you not also think that everything which has an appointed function has also a proper *virtue?* Let us revert to the same instances; we say that the eyes have a function?

They have.

Then have the eyes a virtue also?

They have.

And the ears: did we assign them a function?

Yes.

Then have they a virtue also?

They have.

And is it the same with all other things?

The same.

Attend then: Do you suppose that the eyes could discharge their own function well if they had not their own proper virtue,—that virtue being replaced by a vice?

How could they? You mean, probably, if sight is replaced by blindness.

I mean, whatever their virtue be; for I am not come to that question yet. At present I am asking whether it is through their own peculiar virtue that things perform their proper functions well, and through their own peculiar vice that they perform them ill?

You cannot be wrong in that.

Then if the ears lose their own virtue, will they execute their functions ill?

Certainly.

May we include all other things under the same proposition?

I think we may.

Come, then, consider this point next. Has the soul any function which could not be executed by means of anything else whatsoever? For example, could we in justice assign superintendence and government, deliberation and the like, to anything but the soul, or should we pronounce them to be peculiar to it?

We could ascribe them to nothing else.

Again, shall we declare life to be a function of the soul?

Decidedly.

Do we not also maintain that the soul has a virtue?

We do.

Then can it ever so happen, Thrasymachus, that the soul will perform its functions well when destitute of its own peculiar virtue, or is that impossible?

Impossible.

Then a bad soul must needs exercise authority and sup-

erintendence ill, and a good soul must do all these things well.

Unquestionably.

Now did we not grant that justice was a virtue of the soul, and injustice a vice?

We did.

Consequently the just soul and the just man will live well, and the unjust man ill?

Apparently, according to your argument.

And you will allow that he who lives well is blessed and happy, and he who lives otherwise is the reverse.

CHAPTER VII

PLATO

1. Theory of Knowledge and of Love

The following are classic passages giving two of Plato's statements of the doctrine of "reminiscence":[1]

Of the nature of the soul, though her true form be ever a theme of large and more than mortal discourse, let me speak briefly, and in a figure. And let the figure be composite—a pair of winged horses and a charioteer. Now the winged horses and the charioteers of the gods are all of them noble and of noble descent, but those of other races are mixed; the human charioteer drives his in a pair; and one of them is noble and of noble breed, and the other is ignoble and of ignoble breed; and the driving of them of necessity gives a great deal of trouble to him. I will endeavor to explain to you in what way the mortal differs from the immortal creature. The soul in her totality has the care of inanimate being everywhere, and traverses the whole heaven in divers forms appearing;—when perfect and fully winged she soars upward, and orders the whole world; whereas the imperfect soul, losing her wings and drooping in her flight at last settles on the solid ground—there, finding a home, she receives an earthly frame which appears to be self-moved, but is really moved by her power; and this composition of soul and body is called a living and mortal creature. For immortal no such union can be

[1] Plato, *Phaedrus*, 246–250c; from Jowett, *op. cit.*
On Plato, see p. 3, footnote.

reasonably believed to be; although fancy, not having seen nor surely known the nature of God, may imagine an immortal creature having both a body and also a soul which are united through all time. Let that, however, be as God wills, and be spoken of acceptably to him. And now let us ask the reason why the soul loses her wings!

The wing is the corporeal element which is most akin to the divine, and which by nature tends to soar aloft and carry that which gravitates downwards into the upper region, which is the habitation of the gods. The divine is beauty, wisdom, goodness, and the like; and by these the wing of the soul is nourished, and grows apace; but when fed upon evil and foulness and the opposite of good, wastes and falls away. Zeus, the mighty lord, holding the reins of a winged chariot, leads the way in heaven, ordering all and taking care of all; and there follows him the array of gods and demi-gods, marshaled in eleven bands; Hestia alone abides at home in the house of heaven; of the rest they who are reckoned among the princely twelve march in their appointed order. They see many blessed sights in the inner heaven, and there are many ways to and fro, along which the blessed gods are passing, every one doing his own work; he may follow who will and can, for jealousy has no place in the celestial choir. But when they go to banquet and festival, then they move up the steep to the top of the vault of heaven. The chariots of the gods in even poise, obeying the rein, glide rapidly; but the others labor, for the vicious steed goes heavily, weighing down the charioteer to the earth when his steed has not been thoroughly trained:—and this is the hour of agony and extremest conflict for the soul. For the immortals, when they are at the end of their course, go forth and stand upon the outside of heaven, and the revolution of the spheres carries them round, and they behold the things beyond. But of the heaven which is above the heavens, what earthly

poet ever did or ever will sing worthily? It is such as I will describe; for I must dare to speak the truth, when truth is my theme. There abides the very being with which true knowledge is concerned; the colorless, formless, intangible essence, visible only to mind, who is the pilot of the soul. The divine intelligence, being nurtured upon mind and pure knowledge, and the intelligence of every soul which is capable of receiving the food proper to it, rejoices at beholding reality, and once more gazing upon truth, is replenished and made glad, until the revolution of the worlds brings her round again to the same place. In the revolution she beholds justice, and temperance, and knowledge absolute, not in the form of generation or of relation, which men call existence, but knowledge absolute in existence absolute; and beholding the other true existences in like manner, and feasting upon them, she passes down into the interior of the heavens and returns home; and there the charioteer putting up his horses at the stall, gives them ambrosia to eat and nectar to drink.

Such is the life of the gods; but of other souls, that which follows God best and is likest to him lifts the head of the charioteer into the outer world, and is carried round in the revolution, troubled indeed by the steeds and with difficulty beholding true being; while another only rises and falls, and sees, and again fails to see by reason of the unruliness of the steeds. The rest of the souls are also longing after the upper world, and they all follow, but not being strong enough they are carried round below the surface, plunging, treading on one another, each striving to be first; and there is confusion and perspiration and the extremity of effort; and many of them are lamed or have their wings broken through the ill driving of the charioteers; and all of them after a fruitless toil, not having attained to the mysteries of true being, go away, and feed upon opinion. The reason why the souls exhibit this ex-

ceeding eagerness to behold the plain of truth is that pasturage is found there, which is suited to the highest part of the soul; and the wing on which the soul soars is nourished with this. And there is a law of Destiny, that the soul which attains any vision of truth in company with a god is preserved from harm until the next period, and if attaining always is always unharmed. But when she is unable to follow, and fails to behold the truth, and through some ill-hap sinks beneath the double load of forgetfulness and vice, and her wings fall from her and she drops to the ground, then the law ordains that this soul shall at her first birth pass, not into any other animal, but only into man; and the soul which has seen most of truth shall come to the birth as a philosopher, or artist, or some musical and loving nature; that which has seen truth in the second degree shall be some righteous king or warrior chief; the soul which is of the third class shall be a politician, or economist, or trader; the fourth shall be a lover of gymnastic toils, or a physician; the fifth shall lead the life of a prophet or hierophant; to the sixth the character of a poet or some other imitative artist will be assigned; to the seventh the life of an artisan or husbandman; to the eighth that of a sophist or demagogue; to the ninth that of a tyrant;—all these are states of probation, in which he who does righteously improves, and he who does unrighteously, deteriorates his lot.

Then a thousand years must elapse before the soul of each one can return to the place whence she came, for she cannot grow her wings in less; only the soul of a philosopher, guileless and true, or the soul of a lover, who is not devoid of philosophy, may acquire wings in the third of the recurring periods of a thousand years;—these, if they choose this higher life three times in succession, have wings given them, and go away at the end of three thousand years. But the other souls receive judgment when they have com-

pleted their first life, and after the judgment they go, some of them to the houses of correction which are under the earth, and are punished; others to some place in heaven whither they are lightly borne by justice, and there they live in a manner worthy of the life which they led here when in the form of men. And at the end of the first thousand years the good souls and also the evil souls both come to draw lots and choose their second life, and they may take any which they please. The soul of a man may pass into the life of a beast, or from the beast return again into the man. But the soul which has never seen the truth will not pass into the human form. For a man must have intelligence of universals, and be able to proceed from the many particulars of sense to one conception of reason;—this is the recollection of those things which our soul once saw while following God, when, regardless of that which we now call being, she raised her head up towards the true being. And therefore the mind of the philosopher alone has wings; and this is just, for he is always, according to the measure of his abilities, clinging in recollection to those things in which God abides, and in which abiding He is Divine. And he who employs aright these memories is ever being initiated into perfect mysteries and alone becomes truly perfect. But, as he forgets earthly interests and is rapt in the divine, the vulgar deem him mad, and rebuke him; they do not see that he is inspired.

Thus far I have been speaking of the fourth and last kind of madness, which is imputed to him who, when he sees the beauty of earth, is transported with the recollection of the true beauty; he would like to fly away, but he cannot; he is like a bird fluttering and looking upward and careless of the world below; and he is therefore thought to be mad. And I have shown this of all inspirations to be the noblest and highest and the offspring of the highest to him who has or shares in it, and that

he who loves the beautiful is called a lover because he partakes of it. For, as has been already said, every soul of man has in the way of nature beheld true being; this was the condition of her passing into the form of man. But all souls do not easily recall the things of the other world; they may have seen them for a short time only, or they may have been unfortunate in their earthly lot, and, having had their hearts turned to unrighteousness through some corrupting influence, they may have lost the memory of the holy things which once they saw. Few only retain an adequate remembrance of them; and they, when they behold here any image of that other world, are rapt in amazement; but they are ignorant of what this rapture means, because they do not clearly perceive. For there is no light of justice or temperance or any of the higher ideas which are precious to souls in the earthly copies of them: they are seen through a glass dimly; and there are few who, going to the images, behold in them the realities, and these only with difficulty. There was a time when with the rest of the happy band they saw beauty shining in brightness,—we philosophers following in the train of Zeus, others in company with other gods; and then we beheld the beatific vision and were initiated into a mystery which may be truly called most blessed, celebrated by us in our state of innocence, before we had any experience of evils to come, when we were admitted to the sight of apparitions innocent and simple and calm and happy, which we beheld shining in pure light, pure ourselves and not yet enshrined in that living tomb which we carry about, now that we are imprisoned in the body, like an oyster in his shell. Let me linger over the memory of scenes which have passed away.

Memo.[2] . . . What do you mean by saying that we do

[2] Plato, *Meno*, 81e–86a; from Jowett, *op. cit.*

not learn, and that what we call learning is only a process of recollection? Can you teach me how this is?

Socrates. I told you, Meno, just now that you were a rogue, and now you ask whether I can teach you, when I am saying that there is no teaching, but only recollection; and thus you imagine that you will involve me in a contradiction.

Men. Indeed, Socrates, I protest that I had no such intention. I only ask the question from habit; but if you can prove to me that what you say is true, I wish that you would.

Soc. It will be no easy matter, but I will try to please you to the utmost of my power. Suppose that you call one of your numerous attendants, that I may demonstrate on him.

Men. Certainly. Come hither, boy.

Soc. He is Greek, and speaks Greek, does he not?

Men. Yes, indeed; he was born in the house.

Soc. Attend now to the questions which I ask him, and observe whether he learns from me or only remembers.

Men. I will.

Soc. Tell me, boy, do you know that a figure like this is a square?

Boy. I do.

Soc. And you know that a square figure has these four lines equal?

Boy. Certainly.

Soc. And these lines which I have drawn through the middle of the square are also equal?

Boy. Yes.

Soc. A square may be of any size?

Boy. Certainly.

Soc. And if one side of the figure be of two feet, and the other side be of two feet, how much will the whole be? Let me explain: if in one direction the space was of

two feet, and in the other direction of one foot, the whole would be of two feet taken once?

Boy. Yes.

Soc. But since this side is also of two feet, there are twice two feet?

Boy. There are.

Soc. Then the square is of twice two feet?

Boy. Yes.

Soc. And how many are twice two feet? count and tell me.

Boy. Four, Socrates.

Soc. And might there not be another square twice as large as this, and having like this the lines equal?

Boy. Yes.

Soc. And of how many feet will that be?

Boy. Of eight feet.

Soc. And now try and tell me the length of the line which forms the side of that double square: this is two feet—what will that be?

Boy. Clearly, Socrates, it will be double.

Soc. Do you observe, Meno, that I am not teaching the boy anything, but only asking him questions; and now he fancies that he knows how long a line is necessary in order to produce a figure of eight square feet; does he not?

Men. Yes.

Soc. And does he really know?

Men. Certainly not.

Soc. He only guesses that because the square is double, the line is double.

Men. True.

Soc. Observe him while he recalls the steps in regular order. (To the Boy.) Tell me, boy, do you assert that a double space comes from a double line? Remember that I am not speaking of an oblong, but of a figure equal every way, and twice the size of this—that is to say of eight feet;

and I want to know whether you still say that a double square comes from a double line?

Boy. Yes.

Soc. But does not this line become doubled if we add another such line here?

Boy. Certainly.

Soc. And four such lines will make a space containing eight feet?

Boy. Yes.

Soc. Let us describe such a figure: would you not say that this is the figure of eight feet?

Boy. Yes.

Soc. And are there not these four divisions in the figure, each of which is equal to the figure of four feet?

Boy. True.

Soc. And is not that four times four?

Boy. Certainly.

Soc. And four times is not double?

Boy. No, indeed.

Soc. But how much?

Boy. Four times as much.

Soc. Therefore the double line, boy, has given a space, not twice, but four times as much.

Boy. True.

Soc. Four times four are sixteen—are they not?

Boy. Yes.

Soc. What line would give you a space of eight feet, as this gives one of sixteen feet;—do you see?

Boy. Yes.

Soc. And the space of four feet is made from this half line?

Boy. Yes.

Soc. Good; and is not a space of eight feet twice the size of this, and half the size of the other?

Boy. Certainly.

Soc. Such a space, then, will be made out of a line greater than this one, and less than that one?

Boy. Yes; I think so.

Soc. Very good; I like to hear you say what you think. And now tell me, is not this a line of two feet and that of four?

Boy. Yes.

Soc. Then the line which forms the side of eight feet ought to be more than this line of two feet, and less than the other of four feet?

Boy. It ought.

Soc. Try and see if you can tell me how much it will be.

Boy. Three feet.

Soc. Then if we add a half to this line of two, that will be the line of three. Here are two and there is one; and on the other side, here are two also and there is one: and that makes the figure of which you speak?

Boy. Yes.

Soc. But if there are three feet this way and three feet that way, the whole space will be three times three feet?

Boy. That is evident.

Soc. And how much are three times three feet?

Boy. Nine.

Soc. And how much is the double of four?

Boy. Eight.

Soc. Then the figure of eight is not made out of a line of three?

Boy. No.

Soc. But from what line?—tell me exactly; and if you would rather not reckon, try and show me the line.

Boy. Indeed, Socrates, I do not know.

Soc. Do you see, Meno, what advances he has made in his power of recollection? He did not know at first, and he does not know now, what is the side of a figure of eight feet: but then he thought that he knew, and answered con-

fidently as if he knew, and had no difficulty; now he has a difficulty, and neither knows nor fancies that he knows.

Men. True.

Soc. Is he not better off in knowing his ignorance?

Men. I think that he is.

Soc. If we have made him doubt, and given him the "torpedo's shock," have we done him any harm?

Men. I think not.

Soc. We have certainly, as would seem, assisted him in some degree to the discovery of the truth; and now he will wish to remedy his ignorance, but then he would have been ready to tell all the world again and again that the double space should have a double side.

Men. True.

Soc. But do you suppose that he would ever have enquired into or learned what he fancied that he knew, though he was really ignorant of it, until he had fallen into perplexity under the idea that he did not know, and had desired to know?

Men. I think not, Socrates.

Soc. Then he was the better for the torpedo's touch?

Men. I think so.

Soc. Mark now the farther development. I shall only ask him, and not teach him, and he shall share the enquiry with me: and do you watch and see if you find me telling or explaining anything to him, instead of eliciting his opinion. Tell me, boy, is not this a square of four feet which I have drawn?

Boy. Yes.

Soc. And now I add another square equal to the former one?

Boy. Yes.

Soc. And a third, which is equal to either of them?

Boy. Yes.

Soc. Suppose that we fill up the vacant corner?

Boy. Very good.

Soc. Here, then, there are four equal spaces?

Boy. Yes.

Soc. And how many times larger is this space than this other?

Boy. Four times.

Soc. But it ought to have been twice only, as you will remember.

Boy. True.

Soc. And does not this line, reaching from corner to corner, bisect each of these spaces?

Boy. Yes.

Soc. And are there not here four equal lines which contain this space?

Boy. There are.

Soc. Look and see how much this space is.

Boy. I do not understand.

Soc. Has not each interior line cut off half of the four spaces?

Boy. Yes.

Soc. And how many such spaces are there in this section?

Boy. Four.

Soc. And how many in this?

Boy. Two.

Soc. And four is how many times two?

Boy. Twice.

Soc. And this space is of how many feet?

Boy. Of eight feet.

Soc. And from what line do you get this figure?

Boy. From this.

Soc. That is, from the line which extends from corner to corner of the figure of four feet.

Boy. Yes.

Soc. And that is the line which the learned call the di-

agonal. And if this is the proper name, then you, Meno's slave, are prepared to affirm that the double space is the square of the diagonal?

Boy. Certainly, Socrates.

Soc. What do you say of him, Meno? Were not all these answers given out of his own head?

Men. Yes, they were all his own.

Soc. And yet, as we were just now saying, he did not know?

Men. True.

Soc. But still he had in him those notions of his—had he not?

Men. Yes.

Soc. Then he who does not know may still have true notions of that which he does not know?

Men. He has.

Soc. And at present these notions have just been stirred up in him, as in a dream; but if he were frequently asked the same questions, in different forms, he would know as well as any one at last?

Men. I dare say.

Soc. Without any one teaching him he will recover his knowledge for himself, if he is only asked questions?

Men. Yes.

Soc. And this spontaneous recovery of knowledge in him is recollection?

Men. True.

Soc. And this knowledge which he now has must he not either have acquired or always possessed?

Men. Yes.

Soc. But if he always possessed this knowledge he would always have known; or if he has acquired the knowledge he could not have acquired it in this life, unless he has been taught geometry; for he may be made to do the same with all geometry and every other branch of knowledge.

Now, has any one ever taught him all this? You must know about him, if, as you say, he was born and bred in your house.

Men. And I am certain that no one ever did teach him.

Soc. And yet he has the knowledge?

Men. The fact, Socrates, is undeniable.

Soc. But if he did not acquire the knowledge in this life, then he must have had and learned it at some other time?

Men. Clearly he must.

2. The Allegory of the Cave

This is another very famous passage from the *Republic* bearing upon Plato's theory of knowledge:[3]

Now then, I proceeded to say, go on to compare our natural condition, so far as education and ignorance are concerned, to a state of things like the following. Imagine a number of men living in an underground cavernous chamber, with an entrance open to the light, extending along the entire length of the cavern, in which they have been confined, from their childhood, with their legs and necks so shackled, that they are obliged to sit still and look straight forwards, because their chains render it impossible for them to turn their heads round: and imagine a bright fire burning some way off, above and behind them, and an elevated roadway passing between the fire and the prisoners, with a low wall built along it, like the screens which conjurors put up in front of their audience, and above which they exhibit their wonders.

I have it, he replied.

Also figure to yourself a number of persons walking behind this wall, and carrying with them statues of men, and images of other animals, wrought in wood and stone and

[3] Plato, *Republic,* Book VII, 514a–519b; from Davies and Vaughan, *op. cit.*

all kinds of materials, together with various other articles, which overtop the wall; and, as you might expect, let some of the passers-by be talking, and others silent.

You are describing a strange scene, and strange prisoners.

They resemble us, I replied. For let me ask you, in the first place, whether persons so confined could have seen anything of themselves or of each other, beyond the shadows thrown by the fire upon the part of the cavern facing them?

Certainly not, if you suppose them to have been compelled all their lifetime to keep their heads unmoved.

And is not their knowledge of the things carried past them equally limited?

Unquestionably it is.

And if they were able to converse with one another, do you not think that they would be in the habit of giving names to the objects which they saw before them?

Doubtless they would.

Again; if their prison-house returned an echo from the part facing them, whenever one of the passers-by opened his lips, to what, let me ask you, could they refer the voice, if not to the shadow which was passing?

Unquestionably they would refer it to that.

Then surely such persons would hold the shadows of those manufactured articles to be the only realities.

Without a doubt they would.

Now consider what would happen if the course of nature brought them a release from their fetters, and a remedy for their foolishness, in the following manner. Let us suppose that one of them has been released, and compelled suddenly to stand up, and turn his neck around and walk with open eyes towards the light; and let us suppose that he goes through all these actions with pain, and that the dazzling splendor renders him incapable of discerning those

objects of which he used formerly to see the shadows. What answer should you expect him to make, if some one were to tell him in those days he was watching foolish phantoms, but that now he is somewhat nearer to reality, and is turned towards things more real, and sees more correctly; above all, if he were to point out to him the several objects that are passing by, and question him, and compel him to answer what they are? Should you not expect him to be puzzled, and to regard his old visions as truer than the objects now forced upon his notice?

Yes, much truer.

And if he were further compelled to gaze at the light itself, would not his eyes, think you, be distressed, and would he not shrink and turn away to the things which he could see distinctly, and consider them to be really clearer than the things pointed out to him?

Just so.

And if some one were to drag him violently up the rough and steep ascent from the cavern, and refuse to let him go till he had drawn him out into the light of the sun, would he not, think you, be vexed and indignant at such treatment, and on reaching the light, would he not find his eyes so dazzled by the glare as to be incapable of making out so much as one of the objects that are now called true?

Yes, he would find it so at first.

Hence, I suppose, habit will be necessary to enable him to perceive objects in that upper world. At first he will be most successful in distinguishing shadows; then he will discern the reflections of men and other things in water, and afterwards the realities; and after this he will raise his eyes to encounter the light of the moon and stars, finding it less difficult to study the heavenly bodies and the heaven itself by night, than the sun and the sun's light by day.

Doubtless.

Last of all, I imagine, he will be able to observe and contemplate the nature of the sun, not as it *appears* in water or on alien ground, but as it *is* in itself in its own territory.

Of course.

His next step will be to draw the conclusion, that the sun is the author of the seasons and the years, and the guardian of all things in the visible world, and in a manner the cause of all those things which he and his companions used to see.

Obviously, this will be his next step.

What then? When he recalls to mind his first habitation, and the wisdom of the place, and his old fellow-prisoners, do you not think he will congratulate himself on the change, and pity them?

Assuredly he will.

And if it was their practice in those days to receive honor and commendations one from another, and to give prizes to him who had the keenest eye for a passing object, and who remembered best all that used to precede and follow and accompany it, and from these data divined most ably what was going to come next, do you fancy that he will covet these prizes, and envy those who receive honor and exercise authority among them? Do you not rather imagine that he will feel what Homer describes, and wish extremely

> To drudge on the lands of a master,
> Under a portionless wight,

and be ready to go through anything, rather than entertain those opinions, and live in that fashion?

For my own part, he replied, I am quite of that opinion. I believe he would consent to go through anything rather than live in that way.

And now consider what would happen if such a man

were to descend again and seat himself on his old seat? Coming so suddenly out of the sun, would he not find his eyes blinded with the gloom of the place?

Certainly, he would.

And if he were forced to deliver his opinion again, touching the shadows aforesaid, and to enter the lists against those who had always been prisoners, while his sight continued dim, and his eyes unsteady,—and if this process of initiation lasted a considerable time,—would he not be made a laughingstock, and would it not be said of him, that he had gone up only to come back again with his eyesight destroyed, and that it was not worth while even to attempt the ascent? And if any one endeavored to set them free and carry them to the light, would they not go so far as to put him to death, if they could only manage to get him into their power?

Yes, that they would.

Now this imaginary case, my dear Glaucon, you must apply in all its parts to our former statements, by comparing the region which the eye reveals, to the prison-house, and the light of the fire therein to the power of the sun: and if, by the upward ascent and the contemplation of the upper world, you understand the mounting of the soul into the intellectual region, you will hit the tendency of my own surmises, since you desire to be told what they are; though, indeed, God only knows whether they are correct. But, be that as it may, the view which I take of the subject is to the following effect. In the world of knowledge, the essential Form of Good is the limit of our inquiries, and can barely be perceived; but, when perceived, we cannot help concluding that it is in every case the source of all that is bright and beautiful,—in the visible world giving birth to light and its master, and in the intellectual world dispensing, immediately and with full authority, truth and reason;—and that whosoever would act

wisely, either in private or in public, must set this Form of Good before his eyes.

To the best of my power, said he, I quite agree with you.

That being the case, I continued, pray agree with me on another point, and do not be surprised, that those who have climbed so high are unwilling to take a part in the affairs of men, because their souls are ever loath to desert that upper region. For how could it be otherwise, if the preceding simile is indeed a correct representation of their case?

True, it could scarcely be otherwise.

Well: do you think it a marvelous thing, that a person, who has just quitted the contemplation of divine objects for the study of human infirmities, should betray awkwardness, and appear very ridiculous, when with his sight still dazed, and before he has become sufficiently habituated to the darkness that reigns around, he finds himself compelled to contend in courts of law, or elsewhere, about the shadows of justice, or images which throw the shadows, and to enter the lists in questions involving the arbitrary suppositions entertained by those who have never yet had a glimpse of the essential features of justice?

No, it is anything but marvellous.

Right: for a sensible man will recollect that the eyes may be confused in two distinct ways and from two distinct causes,—that is to say, by sudden transitions either from light to darkness, or from darkness to light. And, believing the same idea to be applicable to the soul, whenever such a person sees a case in which the mind is perplexed and unable to distinguish objects, he will not laugh irrationally, but he will examine whether it has just quitted a brighter life, and has been blinded by the novelty of darkness, or whether it has come from the depths of ignorance into a more brilliant life, and has been dazzled by the unusual splendor; and not till then will he congratulate

the one upon its life and condition, and compassionate the other; and if he chooses to laugh at it, such laughter will be less ridiculous than that which is raised at the expense of the soul that has descended from the light of a higher region.

You speak with great judgment.

Hence, if this be true, we cannot avoid adopting the belief, that the real nature of education is at variance with the account given of it by certain of its professors, who pretend, I believe, to infuse into the mind a knowledge of which it was destitute, just as sight might be instilled into blinded eyes.

True; such are their pretensions.

Whereas, our present argument shews us that there is a faculty residing in the soul of each person, and an instrument enabling each of us to learn; and that, just as we might suppose it to be impossible to turn the eye round from darkness to light without turning the whole body, so must this faculty, or this instrument, be wheeled round, in company with the entire soul, from the perishing world, until it be enabled to endure the contemplation of the real world and the brightest part thereof, which, according to us, is the Form of Good. Am I not right?

You are.

Hence, I continued, this very process of revolution must give rise to an art, teaching in what way the change will most easily and most effectually be brought about. Its object will not be to generate in the person the power of seeing. On the contrary, it assumes that he possesses it, though he is turned in a wrong direction, and does not look towards the right quarter; and its aim is to remedy this defect.

So it would appear.

Hence, while, on the one hand, the other so-called virtues of the soul seem to resemble those of the body, inasmuch

as they really do not pre-exist in the soul, but are formed in it in the course of time by habit and exercise; the virtue of wisdom, on the other hand, does most certainly appertain, as it would appear, to a more divine substance, which never loses its energy, but by change of position becomes useful and serviceable, or else remains useless and injurious. For you must, ere this, have noticed how keen-sighted are the puny souls of those who have the reputation of being clever but vicious, and how sharply they see through the things to which they are directed, thus proving that their powers of vision are by no means feeble, though they have been compelled to become the servants of wickedness, so that the more sharply they see, the more numerous are the evils which they work.

Yes, indeed it is the case.

But, I proceeded, if from earliest childhood these characters had been shorn and stripped of those leaden, earth-born weights, which grow and cling to the pleasures of eating and gluttonous enjoyments of a similar nature, and keep the eye of the soul turned upon the things below;—if, I repeat, they had been released from these snares, and turned round to look at objects that are true, then these very same souls of these very same men would have had as keen an eye for such pursuits as they actually have for those in which they are now engaged.

Yes, probably it would be so.

3. Cosmology

This passage sets forth Plato's view of the essence, and process of creation of the universe, and of the stages of existence exemplified by the forms of life upon the earth:[4]

First then, in my judgment, we must make a distinction and ask, What is that which always is and has no becoming; and what is that which is always becoming and never

[4] Plato, *Himaeus,* 27e–34b; from Jowett, *op. cit.*

is? That which is apprehended by intelligence and reason is always in the same state; but that which is conceived by opinion with the help of sensation and without reason, is always in a process of becoming and perishing and never really is. Now everything that becomes or is created must of necessity be created by some cause, for without a cause nothing can be created. The work of the creator, whenever he looks to the unchangeable and fashions the form and nature of his work after an unchangeable pattern, must necessarily be made fair and perfect; but when he looks to the created only, and uses a created pattern, it is not fair or perfect. Was the heaven then or the world, whether called by this or by any other more appropriate name—assuming the name, I am asking a question which has to be asked at the beginning of an enquiry about anything—was the world, I say, always in existence and without beginning? or created, and had it a beginning? Created, I reply, being visible and tangible and having a body, and therefore sensible; and all sensible things are apprehended by opinion and sense and are in a process of creation and created. Now that which is created must, as we affirm, of necessity be created by a cause. But the father and maker of all this universe is past finding out; and even if we found him, to tell of him to all men would be impossible. And there is still a question to be asked about him: Which of the patterns had the artificer in view when he made the world,—the pattern of the unchangeable, or of that which is created? If the world be indeed fair and the artificer good, it is manifest that he must have looked to that which is eternal; but if what cannot be said without blasphemy is true, then to the created pattern. Every one will see that he must have looked to the eternal; for the world is the fairest of creations and he is the best of causes. And having been created in this way, the world has been framed in the likeness of

that which is apprehended by reason and mind and is unchangeable, and must therefore of necessity, if this is admitted, be a copy of something. Now it is all-important that the beginning of everything should be according to nature. And in speaking of the copy and the original we may assume that words are akin to the matter which they describe; when they relate to the lasting and permanent and intelligible, they ought to be lasting and unalterable, and—as far as their nature allows, irrefutable and immovable—nothing less. But when they express only the copy or likeness and not the eternal things themselves, they need only be likely and analogous to the real words. As being is to becoming, so is truth to belief. If then, Socrates, amid the many opinions about the gods and the generation of the universe, we are not able to give notions which are altogether and in every respect exact and consistent with one another, do not be surprised. Enough, if we adduce probabilities as likely as any others; for we must remember that I who am the speaker, and you who are the judges, are only mortal men, and we ought to accept the tale which is probable and enquire no further.

Soc. Excellent, Timaeus; and we will do precisely as you bid us. The prelude is charming, and is already accepted by us—may we beg of you to proceed to the strain?

Tim. Let me tell you then why the creator made this world of generation. He was good, and the good can never have any jealousy of anything. And being free from jealousy, he desired that all things should be as like himself as they could be. This is in the truest sense the origin of creation and of the world, as we shall do well in believing on the testimony of wise men: God desired that all things should be good and nothing bad, so far as this was attainable. Wherefore also finding the whole visible sphere not at rest, but moving in an irregular and disorderly fashion, out of disorder he brought order, considering that

this was in every way better than the other. Now the deeds of the best could never be or have been other than the fairest; and the creator, reflecting on the things which are by nature visible, found that no unintelligent creature taken as a whole was fairer than the intelligent taken as a whole; and that intelligence could not be present in anything that was devoid of soul. For which reason, when he was framing the universe, he put intelligence in soul, and soul in body, that he might be the creator of a work which was by nature fairest and best. Wherefore, using the language of probability, we may say that the world became a living creature truly endowed with soul and intelligence by the providence of God.

This being supposed, let us proceed to the next stage: in the likeness of what animal did the Creator make the world? It would be an unworthy thing to liken it to any nature which exists as a part only; for nothing can be beautiful which is like any imperfect thing; but let us suppose the world to be the very image of that whole of which all other animals both individually and in their tribes are portions. For the original of the universe contains in itself all intelligible beings, just as this world comprehends us and all other visible creatures. For the Deity, intending to make this world like the fairest and most perfect of intelligible beings, framed one visible animal comprehending within itself all other animals of a kindred nature. Are we right in saying that there is one world, or that they are many and infinite? There must be one only, if the created copy is to accord with the original. For that which includes all other intelligible creatures cannot have a second or companion; in that case there would be need of another living being which would include both, and of which they would be parts, and the likeness would be more truly said to resemble not them, but that other which included them. In order then that the world might be soli-

tary, like the perfect animal, the creator made not two worlds or an infinite number of them; but there is and ever will be one only begotten and created heaven.

Now that which is created is of necessity corporeal, and also visible and tangible. And nothing is visible where there is no fire, or tangible which has no solidity, and nothing is solid without earth. Wherefore also God in the beginning of creation made the body of the universe to consist of fire and earth. But two things cannot be rightly put together without a third; there must be some bond of union between them. And the fairest bond is that which makes the most complete fusion of itself and the things which it combines; and proportion is best adapted to effect such a union. For whenever in any three numbers, whether cube or square, there is a mean, which is to the last term what the first term is to it; and again, when the mean is to the first term as the last term is to the mean,—then the mean becoming first and last, and the first and last both becoming means, they will all of them of necessity, come to be the same, and having become the same with one another will be all one. If the universal frame had been created a surface only and having no depth, a single mean would have sufficed to bind together itself and the other terms; but now, as the world must be solid, and solid bodies are always compacted not by one mean but by two, God placed water and air in the mean between fire and earth, and made them to have the same proportion so far as was possible (as fire is to air so is air to water, and as air is to water so is water to earth); and thus he bound and put together a visible and tangible heaven. And for these reasons, and out of such elements which are in number four, the body of the world was created, and it was harmonized by proportion, and therefore has the spirit of friendship; and having been reconciled to itself, it was indissoluble by the hand of any other than the framer.

Now the creation took up the whole of each of the four elements; for the Creator compounded the world out of all the fire and all the water and all the air and all the earth, leaving no part of any of them nor any power of them outside. His intention was, in the first place, that the animal should be as far as possible a perfect whole and of perfect parts: secondly, that it should be one, leaving no remnants out of which another such world might be created: and also that it should be free from old age and unaffected by disease. Considering that if heat and cold and other powerful forces which unite bodies surround and attack them from without when they are unprepared, they decompose them, and by bringing diseases and old age upon them, make them waste away—for this cause and on these grounds he made the world one whole, having every part entire, and being therefore perfect and not liable to old age and disease. And he gave to the world the figure which was suitable and also natural. Now to the animal which was to comprehend all animals, that figure was suitable which comprehends within itself all other figures. Wherefore he made the world in the form of a globe, round as from a lathe, having its extremes in every direction equidistant from the center, the most perfect and the most like itself of all figures; for he considered that the like is infinitely fairer than the unlike. This he finished off, making the surface smooth all round for many reasons; in the first place, because the living being had no need of eyes when there was nothing remaining outside him to be seen; nor of ears when there was nothing to be heard; and there was no surrounding atmosphere to be breathed; nor would there have been any use of organs by the help of which he might receive his food or get rid of what he had already digested, since there was nothing which went from him or came into him: for there was nothing beside him. Of design he was created thus, his own waste providing his

own food, and all that he did or suffered taking place in and by himself. For the Creator conceived that a being which was self-sufficient would be far more excellent than one which lacked anything; and, as he had no need to take anything or defend himself against any one, the Creator did not think it necessary to bestow upon him hands: nor had he any need of feet, nor of the whole apparatus of walking; but the movement suited to his spherical form was assigned to him, being of all the seven that which is most appropriate to mind and intelligence; and he was made to move in the same manner and on the same spot, within his own limits revolving in a circle. All the other six motions were taken away from him, and he was made not to partake of their deviations. And as this circular movement required no feet, the universe was created without legs and without feet.

Such was the whole plan of the eternal God about the god that was to be, to whom for this reason he gave a body, smooth and even, having a surface in every direction equidistant from the center, a body entire and perfect, and formed out of perfect bodies. And in the center he put the soul, which he diffused throughout the body, making it also to be the exterior environment of it; and he made the universe a circle moving in a circle, one and solitary, yet by reason of its excellence able to converse with itself, and needing no other friendship or acquaintance. Having these purposes in view he created the world a blessed god.

Now [5] when the Creator had framed the soul according to his will, he formed within her the corporeal universe, and brought the two together, and united them center to center. The soul, interfused everywhere from the center to the circumference of heaven, of which also she is the

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[5] *Ibid.*, 36d–38e.

external envelopment, herself turning in herself, began a divine beginning of never-ceasing and rational life enduring throughout all time. The body of heaven is visible, but the soul is invisible, and partakes of reason and harmony, and being made by the best of intellectual and everlasting natures, is the best of things created. And because she is composed of the same and of the other and of the essence, these three, and is divided and united in due proportion, and in her revolutions returns upon herself, the soul, when touching anything which has essence, whether dispersed in parts or undivided, is stirred through all her powers, to declare the sameness or difference of that thing and some other; and to what individuals are related, and by what affected, and in what way and how and when, both in the world of generation and in the world of immutable being. And when reason, which works with equal truth, whether she be in the circle of the diverse or of the same—in voiceless silence holding her onward course in the sphere of the self-moved—when reason, I say, is hovering around the sensible world and when the circle of the diverse also moving truly imparts the intimations of sense to the whole soul, then arise opinions and beliefs sure and certain. But when reason is concerned with the rational, and the circle of the same moving smoothly declares it, then intelligence and knowledge are necessarily perfected. And if any one affirms that in which these two are found to be other than the soul, he will say the very opposite of the truth.

When the father and creator saw the creature which he had made moving and living, the created image of the eternal gods, he rejoiced, and in his joy determined to make the copy still more like the original; and as this was eternal, he sought to make the universe eternal, so far as might be. Now the nature of the ideal being was everlasting, but to bestow this attribute in its fullness upon a

creature was impossible. Wherefore he resolved to have a moving image of eternity, and when he set in order the heaven, he made this image eternal but moving according to number, while eternity itself rests in unity; and this image we call time. For there were no days and nights and months and years before the heaven was created, but when he constructed the heaven he created them also. They are all parts of time, and the past and future are created species of time, which we unconsciously but wrongly transfer to the eternal essence; for we say that he "was," he "is," he "will be," but the truth is that "is" alone is properly attributed to him, and that "was" and "will be" are only to be spoken of becoming in time, for they are motions, but that which is immovably the same cannot become older or younger by time, nor ever did or has become, or hereafter will be, older or younger, nor is subject at all to any of those states which affect moving and sensible things and of which generation is the cause. These are the forms of time, which imitates eternity and revolves according to a law of number. Moreover, when we say that what has become *is* become and what becomes *is* becoming, and that what will become *is* about to become and that the non-existent *is* non-existent,—all these are inaccurate modes of expression. But perhaps this whole subject will be more suitably discussed on some other occasion.

Time, then, and the heaven came into being at the same instant in order that, having been created together, if ever there was to be a dissolution of them, they might be dissolved together. It was framed after the pattern of the eternal nature, that it might resemble this as far as was possible; for the pattern exists from eternity, and the created heaven has been, and is, and will be, in all time. Such was the mind and thought of God in the creation of time. The sun and moon and five other stars, which are called the planets, were created by him in order to distinguish

and preserve the numbers of time; and when he had made their several bodies, he placed them in the orbits in which the circle of the other was revolving,—in seven orbits seven stars. First, there was the moon in the orbit nearest the earth, and next the sun, in the second orbit above the earth; then came the morning star and the star sacred to Hermes, moving in orbits which have an equal swiftness with the sun, but in an opposite direction; and this is the reason why the sun and Hermes and Lucifer overtake and are overtaken by each other. To enumerate the places which he assigned to the other stars, and to give all the reasons why he assigned them, although a secondary matter, would give more trouble than the primary. These things at some future time, when we are at leisure, may have the consideration which they deserve, but not at present.

Thus[6] far and until the birth of time the created universe was made in the likeness of the original, but inasmuch as all animals were not yet comprehended therein, it was still unlike. What remained, the creator then proceeded to fashion after the nature of the pattern. Now as in the ideal animal the mind perceives ideas or species of a certain nature and number, he thought that this created animal ought to have species of a like nature and number. There are four such; one of them is the heavenly race of the gods; another, the race of birds whose way is in the air; the third the watery species, and the fourth, the pedestrian and land creatures. Of the heavenly and divine, he created the greater part out of fire, that they might be the brightest of all things and fairest to behold, and he fashioned them after the likeness of the universe in the figure of a circle, and made them follow the intelligent motion of the supreme distributing them over the whole

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[6] *Ibid.*, 39e–41d.

circumference of heaven, which was to be a true cosmos or glorious world spangled with them all over. And he gave to each of them two movements: the first, a movement on the same spot after the same manner, whereby they ever continue to think consistently the same thoughts about the same things; the second, a forward movement, in which they are controlled by the revolution of the same and the like; but by the other five motions they were unaffected, in order that each of them might attain the highest perfection. And for this reason the fixed stars were created, to be divine and eternal animals, ever-abiding and revolving after the same manner and on the same spot; and the other stars which reverse their motion and are subject to deviations of this kind, were created in the manner already described. The earth, which is our nurse, clinging around the pole which is extended through the universe, he framed to be the guardian and artificer of night and day, first and eldest of gods that are in the interior of heaven. Vain would be the attempt to tell all the figures of them circling as in dance, and their juxtapositions, and the return of them in their revolutions upon themselves, and their approximations, and to say which of these deities in their conjunctions meet, and which of them are in opposition, and in what order they get behind and before one another, and when they are severally eclipsed to our sight and again reappear, sending terrors and intimations of the future to those who cannot calculate their movements—to attempt to tell of all this without a visible representation of the heavenly system would be labor in vain. Enough on this head; and now let what we have said about the nature of the created and visible gods have an end.

To know or tell the origin of the other divinities is beyond us, and we must accept the traditions of the men of old time who affirm themselves to be the offspring of the gods—that is what they say—and they must surely have

known their own ancestors. How can we doubt the word of the children of the gods? Although they give no probable or certain proofs, still, as they declare that they are speaking of what took place in their own family, we must conform to custom and believe them. In this manner, then, according to them, the genealogy of these gods is to be received and set forth.

Oceanus and Tethys were the children of Earth and Heaven, and from these sprang Phorcys and Cronos and Rhea, and all that generation; and from Cronos and Rhea sprang Zeus and Hera, and all those who are said to be their brethren, and others who were the children of these.

Now, when all of them, both those who visibly appear in their revolutions as well as those other gods who are of a more retiring nature, had come into being, the creator of the universe addressed them in these words: "Gods, children of gods, who are my works, and of whom I am the artificer and father, my creations are indissoluble, if so I will. All that is bound may be undone, but only an evil being would wish to undo that which is harmonious and happy. Wherefore, since ye are but creatures, ye are not altogether immortal and indissoluble, but ye shall certainly not be dissolved, nor be liable to the fate of death, having in my will a greater and mightier bond than those with which ye were bound at the time of your birth. And now listen to my instructions:—Three tribes of mortal beings remain to be created—without them the universe will be incomplete, for it will not contain every kind of animal which it ought to contain, if it is to be perfect. On the other hand, if they were created by me and received life at my hands, they would be on an equality with the gods. In order then that they may be mortal, and that this universe may be truly universal, do ye, according to your natures, betake yourselves to the formation of animals, imitating the power which was shown by me in creating you.

The part of them worthy of the name immortal, which is called divine and is the guiding principle of those who are willing to follow justice and you—of that divine part I will myself sow the seed, and having made a beginning, I will hand the work over to you. And do ye then interweave the mortal with the immortal, and make and beget living creatures, and give them food, and make them to grow, and receive them again in death.

4. Teleology

Plato states here his belief, with the reasons therefor, in an underlying purpose in the universe:[7]

Nor am I any longer satisfied that I understand the reason why one or anything else is either generated or destroyed or is at all, but I have in my mind some confused notion of a new method, and can never admit the other.

Then I heard some one reading, as he said, from a book of Anaxagoras, that mind was the disposer and cause of all, and I was delighted at this notion, which appeared quite admirable, and I said to myself: If mind is the disposer, mind will dispose all for the best, and put each particular in the best place; and I argued that if any one desired to find out the cause of the generation or destruction or existence of anything, he must find out what state of being or doing or suffering was best for that thing, and therefore a man had only to consider the best for himself and others, and then he would also know the worst, since the same science comprehended both. And I rejoiced to think that I had found in Anaxagoras a teacher of the causes of existence such as I desired, and I imagined that he would tell me first whether the earth is flat or round; and whichever was true, he would proceed to explain the cause and the necessity of this being so, and then he would

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[7] Plato, *Phaedo*, 97c–99d; from Jowett, *op. cit.*

teach me the nature of the best and show that this was best; and if he said that the earth was in the center, he would further explain that this position was the best, and I should be satisfied with the explanation given, and not want any other sort of cause. And I thought that I would then go on and ask him about the sun and moon and stars, and that he would explain to me their comparative swiftness, and their returnings and various states, active and passive, and how all of them were for the best. For I could not imagine that when he spoke of mind as the disposer of them, he would give any other account of their being as they are, except that this was best; and I thought that when he had explained to me in detail the cause of each and the cause of all, he would go on to explain to me what was best for each and what was good for all. These hopes I would not have sold for a large sum of money, and I seized the books and read them as fast as I could in my eagerness to know the better and the worse.

What expectations I had formed, and how grievously was I disappointed! As I proceeded, I found my philosopher altogether forsaking mind or any other principle of order, but having recourse to air, and ether, and water, and other eccentricities. I might compare him to a person who began by maintaining generally that mind is the cause of the actions of Socrates, but who, when he endeavored to explain the causes of my several actions in detail, went on to show that I sit here because my body is made up of bones and muscles; and the bones, as he would say, are hard and have joints which divide them, and the muscles are elastic, and they cover the bones, which have also a covering or environment of flesh and skin which contains them; and as the bones are lifted at their joints by the contraction or relaxation of the muscles, I am able to bend my limbs, and this is why I am sitting here in a curved posture—that is what he would say; and he would have

a similar explanation of my talking to you, which he would attribute to sound, and air, and hearing, and he would assign ten thousand other causes of the same sort, forgetting to mention the true cause, which is, that the Athenians have thought fit to condemn me, and accordingly I have thought it better and more right to remain here and undergo my sentence; for I am inclined to think that these muscles and bones of mine would have gone off long ago to Megara or Boeotia—by the dog they would, if they had been moved only by their own idea of what was best, and if I had not chosen the better and nobler part, instead of playing truant and running away, of enduring any punishment which the state inflicts. There is surely a strange confusion of causes and conditions in all this. It may be said, indeed, that without bones and muscles and the other parts of the body I cannot execute my purposes. But to say that I do as I do because of them, and that is the way in which mind acts, and not from the choice of the best, is a very careless and idle mode of speaking. I wonder that they cannot distinguish the cause from the condition, which the many, feeling about in the dark, are always mistaking and misnaming. And thus one man makes a vortex all round, and steadies the earth by the heaven; another gives the air as a support to the earth, which is a sort of broad trough. Any power which in arranging them as they are arranges them for the best never enters into their minds; and instead of finding any superior strength in it, they rather expect to discover another Atlas of the world who is stronger and more everlasting and more containing than the good;—of the obligatory and containing power of the good they think nothing; and yet this is the principle which I would fain learn if any one would teach me.

5. The Idea of the Good

This is another expression of Plato's conviction that the universe is a moral order, and possessed of ethical meaning: [8]

Do you suppose that any one would let you go without asking what that science is which you call the highest, and of what it treats?

Certainly not, I replied; so put the question yourself. Assuredly you have heard the answer many a time; but at this moment either you have forgotten it, or else you intend to find me employment by raising objections. I incline to the latter opinion; for you have often been told that the essential Form of the Good is the highest object of science, and that this essence, by blending with just things and all other created objects, renders them useful and advantageous. And at this moment you can scarcely doubt that I am going to assert this, and to assert, besides, that we are not sufficiently acquainted with this essence. And if so,—if, I say, we know everything else perfectly, without knowing this,—you are aware that it will profit us nothing; just as it would be equally profitless to possess everything without possessing what is good. Or do you imagine it would be a gain to possess all possessible things, with the single exception of things good; or to apprehend every conceivable object, without apprehending what is good,—in other words, to be destitute of every good and beautiful conception?

Not I, believe me.

Moreover, you doubtless know besides, that the chief good is supposed by the multitude to be pleasure,—by the more enlightened, insight?

Of course I know that.

And you are aware, my friend, that the advocates of this latter opinion are unable to explain what they mean

[8] Plato, *Republic*, Book VI, from 504e–506b; Davies and Vaughan, *op. cit.*

by insight, and are compelled at last to explain it as insight into that which is good.

Yes, they are in a ludicrous difficulty.

They certainly are: since they reproach us with ignorance of that which is good, and then speak to us the next moment as if we knew what it was. For they tell us that the chief good is insight into good, assuming that we understand their meaning, as soon as they have uttered the term "good."

It is perfectly true.

Again: are not those, whose definition identifies pleasure with good, just as much infected with error as the preceding? For they are forced to admit the existence of evil pleasures, are they not?

Certainly they are.

From which it follows, I should suppose, that they must admit the same thing to be both good and evil. Does it not?

Certainly it does.

Then is it not evident that this is a subject often and severely disputed?

Doubtless it is.

Once more: is it not evident, that though many persons would be ready to do and seem to do, or to possess and seem to possess, what seems just and beautiful, without really being so; yet, when you come to things good, no one is content to acquire what only seems such; on the contrary, everybody seeks the reality, and semblances are here, if nowhere else, treated with universal contempt?

Yes, that is quite evident.

This good, then, which every soul pursues, as the end of all its actions, divining its existence, but perplexed and unable to apprehend satisfactorily its nature, or to enjoy that steady confidence in relation to it, which it does enjoy in relation to other things, and therefore doomed to forfeit

any advantage which it might have derived from those same things;—are we to maintain that, on a subject of such overwhelming importance, the blindness we have described is a desirable feature in the character of those best members of the state in whose hands everything is to be placed?

Most certainly not.

At any rate, if it be not known in what way just things and beautiful things come to be also good, I imagine that such things will not possess a very valuable guardian in the person of him who is ignorant on this point. And I surmise that none will know the just and the beautiful satisfactorily till he knows the good.

Now,[9] this power, which supplies the objects of real knowledge with the truth that is in them, and which renders to him who knows them the faculty of knowing them, you must consider to be the essential Form of Good, and you must regard it as the origin of science, and of truth, so far as the latter comes within the range of knowledge: and though knowledge and truth are both very beautiful things, you will be right in looking upon good as something distinct from them, and even more beautiful. And just as, in the analogous case, it is right to regard light and vision as resembling the sun, but wrong to identify them with the sun; so, in the case of science and truth, it is right to regard both of them as resembling good, but wrong to identify either of them with good; because, on the contrary, the quality of the good ought to have a still higher value set upon it.

That implies an inexpressible beauty, if it not only is the source of science and truth, but also surpasses them in beauty; for, I presume, you do not mean by it pleasure.

Hush! I exclaimed, not a word of that. But you had better examine the illustration further, as follows.

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[9] *Ibid.*, 508e–509c.

Shew me how. .

I think you will admit that the sun ministers to visible objects, not only the faculty of being seen, but also their vitality, growth, and nutriment, though it is not itself equivalent to vitality.

Of course it is not.

Then admit that, in like manner, the objects of knowledge not only derive from the good the gift of being known, but are further endowed by it with a real and essential existence; though the good, far from being identical with real existence, actually transcends it in dignity and power.

6. Psychology

Plato's psychological theory both indicates the place of the human being in the scheme of the world and also serves as a basis for his theory of virtue:[10]

First, then, the gods, imitating the spherical shape of the universe, enclosed the two divine courses in a spherical body, that namely, which we now term the head, being the most divine part of us and the lord of all that is in us: to this the gods, when they put together the body, gave all the other members to be servants, considering that it partook of every sort of motion.

As[11] I said at first, when all things were in disorder God created in each thing in relation to itself, and in all things in relation to each other, all the measures and harmonies which they could possibly receive. For in those days nothing had any proportion except by accident; nor did any of the things which now have names deserve to be named at all—as, for example, fire, water, and the rest of the elements. All these the creator first set in order, and out of them he constructed the universe, which was a single animal comprehending in itself all other animals, mortal

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[10] Plato, *Timaeus*, 44d; from Jowett, *op. cit.*
[11] *Ibid.*, 69c–71a.

and immortal. Now of the divine, he himself was the creator, but the creation of the mortal he committed to his offspring. And they, imitating him, received from him the immortal principle of the soul; and around this they proceeded to fashion a mortal body, and made it to be the vehicle of the soul, and constructed within the body a soul of another nature which was mortal, subject to terrible and irresistible affections,—first of all, pleasure, the greatest incitement to evil; then, pain, which deters from good; also rashness and fear, two foolish counselors, anger hard to be appeased, and hope easily led astray;—these they mingled with irrational sense and with all-daring love according to necessary laws, and so framed man. Wherefore, fearing to pollute the divine any more than was absolutely unavoidable, they gave to the mortal nature a separate habitation in another part of the body, placing the neck between them to be the isthmus and boundary, which they constructed between the head and breast, to keep them apart. And in the breast, and in what is termed the thorax, they encased the mortal soul; and as the one part of this was superior and the other inferior they divided the cavity of the thorax into two parts, as the women's and man's apartments are divided in houses, and placed the midriff to be a wall of partition between them. That part of the inferior soul which is endowed with courage and passion and loves contention they settled nearer the head, midway between the midriff and the neck, in order that it might be under the rule of reason and might join with it in controlling and restraining the desires when they are no longer willing of their own accord to obey the word of command issuing from the citadel.

The heart, the knot of the veins and the fountain of the blood which races through all the limbs, was set in the place of guard, that when the might of passion was roused by reason making proclamation of any wrong as-

sailing them from without or being perpetuated by the desires within, quickly the whole power of feeling in the body, perceiving these commands and threats, might obey and follow through every turn and alley, and thus allow the principle of the best to have the command in all of them. But the gods, foreknowing that the palpitation of the heart in the expectation of danger and the swelling and excitement of passion was caused by fire, formed and implanted as a supporter to the heart the lung, which was, in the first place, soft and bloodless, and also had within hollows like the pores of a sponge, in order that by receiving the breath and the drink, it might give coolness and the power of respiration and alleviate the heat. Wherefore they cut the air-channels leading to the lung, and placed the lung about the heart as a soft spring, that, when passion was rife within, the heart, beating against a yielding body, might be cooled and suffer less, and might thus become more ready to join with passion in the service of reason.

The part of the soul which desires meats and drinks and the other things of which it has need by reason of the bodily nature, they placed between the midriff and the boundary of the navel, contriving in all this region a sort of manger for the food of the body; and there they bound it down like a wild animal which was chained up with man, and must be nourished if man was to exist. They appointed this lower creation his place here in order that he might be always feeding at the manger, and have his dwelling as far as might be from the council-chamber, making as little noise and disturbance as possible, and permitting the best part to advise quietly for the good of the whole.

7. The Cardinal Virtues

The theory of the cardinal virtues, which is a classic one, grows out of the psychological analysis of human life. Plato discusses the virtues in connection with their utility for the social order. The following passage will serve to illustrate the essential points of his doctrine: [12]

To begin then: in the first place wisdom seems to be plainly discernible in our subject; and in connection with it a paradoxical fact presents itself.

What is that?

The state which we have described is really wise, if I am not mistaken, inasmuch as it is prudent in counsel, is it not?

It is.

And this very quality, prudence in counsel, is evidently a kind of knowledge: for it is not ignorance, I imagine, but knowledge, that makes men deliberate prudently.

Evidently.

But there are many different kinds of knowledge in the state.

Unquestionably there are.

Is it then in virtue of the knowledge of its carpenters that the state is to be described as wise, or prudent in counsel?

Certainly not; for in virtue of such knowledge it could only be called a city of good carpentry.

Then it is not the knowledge it employs in considering how vessels of wood may best be made, that will justify us in calling our city wise.

Certainly not.

Well, is it the knowledge which has to do with vessels of brass, or any other of this kind?

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[12] Plato, *Republic*, Book IV, 428b–435c; from Davies and Vaughan, *op. cit*

No, none whatever.

Neither will a knowledge of the mode of raising produce from the soil give a state the claim to the title of wise, but only to that of a successful agricultural state.

So I think.

Tell me, then, does our newly-organized state contain any kind of knowledge, residing in any section of the citizens, which takes measures, not in behalf of anything *in* the state, but in behalf of the state as a whole, devising in what manner its internal and foreign relations may best be regulated?

Certainly it does.

What is this knowledge, and in whom does it reside?

It is our protective science, and it resides in that governing class whom we denominated just now perfect guardians.

Then in virtue of this knowledge what do you call the state?

I call it prudent in counsel and truly wise.

Which do you suppose will be the more numerous class in our state, the braziers, or these genuine guardians?

The braziers will far outnumber the others.

Then will the guardians be the smallest of all the classes possessing this or that branch of knowledge, and bearing this or that name in consequence?

Yes, much the smallest.

Then it is the knowledge residing in its smallest class or section, that is to say, in the predominant and ruling body, which entitles a state, organized agreeably to nature, to be called wise as a whole: and that class whose right and duty it is to partake of the knowledge which alone of all kinds of knowledge is properly called wisdom, is naturally, as it appears, the least numerous body in the state.

Most true.

Here then we have made out, in some way or other,

one of the four qualities, and the part of the state in which it is seated.

To my mind, said he, it has been made out satisfactorily.

Again, there can assuredly be no great difficulty in discerning the quality of courage, and the class in which it resides, and which entitles the state to be called brave.

How so?

In pronouncing a city to be cowardly or brave, who would look to any but that portion of it which fights in its defence and takes the field in its behalf?

No one would look to anything else.

No; and for this reason, I imagine—that the cowardice or courage of the state itself is not necessarily implied in that of the other classes.

No, it is not.

Then a city is brave as well as wise, in virtue of a certain portion of itself, because it has in that portion a power which can without intermission keep safe the right opinion concerning things to be feared, which teaches that they are such as the legislator has declared in the prescribed education. Is not this what you call courage?

I did not quite understand what you said; be so good as to repeat it.

I say that courage is a kind of safe keeping.

What kind of safe keeping?

The safe keeping of the opinion created by law through education, which teaches what things and what kind of things are to be feared. And when I spoke of keeping it safe without intermission, I meant that it was to be thoroughly preserved alike in moments of pain and of pleasure, of desire and of fear, and never to be cast away. And if you like, I will illustrate it by a comparison which seems to me an apt one.

I should like it.

Well then, you know that dyers, when they wish to dye

wool so as to give it the true sea-purple, first select from the numerous colors one variety, that of white wool, and then subject it to much careful preparatory dressing, that it may take the color as brilliantly as possible; after which they proceed to dye it. And when the wool has been dyed on this system, its color is indelible, and no washing either with or without soap can rob it of its brilliancy. But when this course has not been pursued, you know the results, whether this or any other color be dyed without previous preparation.

I know that the dye washes out in a ridiculous way.

You may understand from this what we were laboring, to the best of our ability, to bring about, when we were selecting our soldiers and training them in music and gymnastic. Imagine that we were only contriving how they might be best wrought upon to take as it were the color of the laws, in order that their opinion concerning things to be feared, and on all other subjects, might be indelible, owing to their congenial nature and appropriate training, and that their color might not be washed out by such terribly efficacious detergents as pleasure, which works more powerfully than any potash or lye, and pain, and fear, and desire, which are more potent than any other solvent in the world. This power, therefore, to hold fast continually the right and lawful opinion concerning things to be feared and things not to be feared, I define to be courage, and call it by that name, if you do not object.

No, I do not: for when the right opinion on these matters is held without education, as by beasts and slaves, you would not, I think, regard it as altogether legitimate, and you would give it some other name than courage.

Most true.

Then I accept this account of courage.

Do so, at least as an account of the courage of citizens, and you will be right. On a future occasion, if you like,

we will go into this question more fully: at present it is beside our enquiry, the object of which is justice: we have done enough therefore, I imagine, for the investigation of courage.

You are right.

Two things, I proceeded, now remain, that we must look for in the state, temperance, and that which is the cause of all these investigations, justice.

Exactly so.

Well, not to trouble ourselves any further about temperance, is there any way by which we can discover justice?

For my part, said he, I do not know, nor do I wish justice to be brought to light first, if we are to make no further inquiry after temperance; so, if you wish to gratify me, examine into the latter, before you proceed to the former.

Indeed, I do wish it, as I am an honest man.

Proceed then with the examination.

I will; and from our present point of view, temperance has more the appearance of a concord or harmony, than the former qualities had.

How so?

Temperance is, I imagine, a kind of order and a mastery, as men say, over certain pleasures and desires. Thus we plainly hear people talking of a man's being master of himself, in some sense or other; and other similar expressions are used, in which we may trace a print of the thing. Is it not so?

Most certainly it is.

But is not the expression "master of himself" a ridiculous one? For the man who is master of himself will also, I presume, be the slave of himself, and the slave will be the master. For the subject of all these phrases is the same person.

Undoubtedly.

Well, I continued, it appears to me that the meaning of the expression is, that in the man himself, that is, in his soul, there resides a good principle and a bad, and when the naturally good principle is master of the bad, this state of things is described by the term "master of himself"; certainly it is a term of praise:—but when in consequence of evil training, or the influence of associates, the smaller force of the good principle is overpowered by the superior numbers of the bad, the person so situated is described in terms of reproach and condemnation, as a slave of self, and a dissolute person.

Yes, this seems a likely account of it.

Now turn your eyes towards our new state, and you will find one of these conditions realized in it: for you will allow that it may fairly be called "master of itself," if temperance and self-mastery may be predicated of that in which the good principle governs the bad.

I am looking as you direct, and I acknowledge the truth of what you say.

It will further be admitted that those desires, and pleasures, and pains, which are many and various, will be chiefly found in children, and women, and servants; and in the vulgar mass also among nominal freemen.

Precisely so.

On the other hand, those simple and moderate desires, which go hand in hand with intellect and right opinion, under the guidance of reasoning, will be found in a small number of men, that is, in those of the best natural endowments, and the best education.

True.

Do you not see that the parallel to this exists in your state; in other words, that the desires of the vulgar many are there controlled by the desires and the wisdom of the cultivated few?

I do.

If any state then may be described as master of itself, its pleasures and its desires, ours may be so characterized.

Most certainly.

May we not then also call it temperate, on all these accounts?

Surely we may.

And again, if there is any city in which the governors and the governed are unanimous on the question who ought to govern, such unanimity will exist in ours. Do you not think so?

Most assuredly I do.

In which of the two classes of citizens will you say that temperance resides, when they are in this condition? in the rulers or in the subjects?

In both I fancy.

Do you see, then, that we were not bad prophets when we divined just now that temperance resembled a kind of harmony?

Why, pray?

Because it does not operate like courage and wisdom, which, by residing in particular sections of the state, make it brave and wise respectively; but spreads throughout the whole in literal diapason, producing a unison between the weakest and the strongest and the middle class, whether you measure by the standard of intelligence, or bodily strength, or numbers, or wealth, or anything else of the kind: so that we shall be fully justified in pronouncing temperance to be that unanimity, which we described as a concord between the naturally better element and the naturally worse, whether in a state or in a single person, as to which of the two has the right to govern.

I fully agree with you.

Very well, I continued: we have discerned in our state three out of the four principles; at least such is our present impression. Now what will that remaining principle be

through which the state will further participate in virtue? —for this, we may be sure, is justice.

Evidently it is.

Now then, Glaucon, we must be like hunters surrounding a cover, and must give close attention that justice may nowhere escape us and disappear from our view: for it is manifest that she is somewhere here; so look for her, and strive to gain a sight of her, for perhaps you may discover her first, and give the alarm to me.

I wish I might, replied he; but you will use me quite well enough, if, instead of that, you will treat me as one who is following your steps, and is able to see what is pointed out to him.

Follow me then, after joining your prayers with mine.

I will do so; only do you lead the way.

Truly, said I, the ground seems to be hard to traverse, and covered with wood: at all events it is dark and difficult to explore; but still we must on.

Yes, that we must.

Here I caught a glimpse, and exclaimed, Ho! ho! Glaucon, here is something that looks like a track, and I believe the game will not altogether escape us.

That is good news.

Upon my word, said I, we are in a most foolish predicament.

How so?

Why, my good sir, it appears that what we were looking for has been all this time rolling before our feet, and we never saw it, but did the most ridiculous thing. Just as people at times go about looking for something which they hold in their hands, so we, instead of fixing our eyes upon the thing itself, kept gazing at some point in the distance, and this was probably the reason why it eluded our search.

What do you mean?

This: that I believe we were conversing of it together,

without understanding that we were in a manner describing it ourselves.

Your preface seems long to one who is anxious for the explanation.

Well then, listen, and judge whether I am right or not. What at the commencement we laid down as a universal rule of action, when we were founding our state, this, if I mistake not, or some modification of it, is justice. I think we affirmed, if you recollect, and frequently repeated, that every individual ought to have some one occupation in the state, which should be that to which his natural capacity was best adapted.

We did say so.

And again, we have often heard people say, that to mind one's own business, and not be meddlesome, is justice; and we have often said the same thing ourselves.

We have said so.

Then it would seem, my friend, that to do one's own business, in some shape or other, is justice. Do you know whence I infer this?

No; be so good as to tell me.

I think that the remainder left in the state, after eliminating the qualities which we have considered, I mean temperance, and courage, and wisdom, must be that which made their entrance into it possible, and which preserves them there so long as they exist in it. Now we affirmed that the remaining quality, when three out of the four were found, would be justice.

Yes, unquestionably it would.

If, however, it were required to decide which of these qualities will have most influence in perfecting by its presence the virtue of our state, it would be difficult to determine; whether it will be the harmony of opinion between the governors and the governed, or the faithful adherence on the part of the soldiers to the lawful belief concerning

the things which are, and the things which are not, to be feared; or the existence of wisdom and watchfulness in the rulers; or whether the virtue of the state may not be chiefly traced to the presence of that fourth principle in every child and woman, in every slave, freeman, and artisan, in the ruler and in the subject, requiring each to do his own work, and not meddle with many things.

It would be a difficult point to settle, unquestionably.

Thus it appears that, in promoting the virtue of a state, the power that makes each member of it do his own work, may compete with its wisdom, and its temperance, and its courage.

Decidedly it may.

But if there is a principle which rivals these qualities in promoting the virtue of a state, will you not determine it to be justice?

Most assuredly.

Consider the question in another light, and see whether you will come to the same conclusion. Will you assign to the rulers of the state the adjudication of law-suits?

Certainly.

Will not their judgments be guided, above everything, by the desire that no one may appropriate what belongs to others, nor be deprived of what is his own?

Yes, that will be their main study.

Because that is just?

Yes.

Thus, according to this view also, it will be granted that to have and do what belongs to us and is our own, is justice.

True.

Now observe whether you hold the same opinion that I do. If a carpenter should undertake to execute the work of a shoemaker, or a shoemaker that of a carpenter, either by interchanging their tools and distinctions, or by the same person undertaking both trades, with all the changes

involved in it, do you think it would greatly damage the state?

Not very greatly.

But when one whom nature has made an artisan, or a producer of any other kind, is so elated by wealth, or a large connection, or bodily strength, or any similar advantages, as to intrude himself into the class of the warriors; or when a warrior intrudes himself into the class of the senators and guardians, of which he is unworthy, and when these interchange their tools and their distinctions, or when one and the same person attempts to discharge all these duties at once, then, I imagine, you will agree with me, that such change and meddling among these will be ruinous to the state.

Most assuredly they will.

Then any intermeddling in the three classes, or change from one to another, would inflict great damage on the state, and may with perfect propriety be described as in the strongest sense a doing of evil.

Quite so.

And will you not admit that evil-doing of the worst kind towards one's own state is injustice?

Unquestionably.

This then is injustice. On the other hand, let us state that, conversely, adherence to their own business on the part of the industrious, the military, and the guardian classes, each of these doing its own work in the state, is justice, and will render the state just.

I fully coincide, he said, in this view.

Let us not state it yet quite positively; but if we find, on applying this conception to the individual man, that there too it is admitted to constitute justice, we will then yield our assent—for what more can we say?—but if not, in that case we will institute a new inquiry. At present, however, let us complete the investigation which we undertook in the belief that, if we first endeavored to contemplate

justice in some larger subject which contains it, we should find it easier to discern its nature in the individual man. Such a subject we recognized in a state, and accordingly we organized the best we could, being sure that justice must reside in a *good* city. The view, therefore, which presented itself to us there, let us now apply to the individual: and if it be admitted, we shall be satisfied; but if we should find something different in the case of the individual, we will again go back to our city, and put our theory to the test. And perhaps by considering the two cases side by side, and rubbing them together, we may cause justice to flash out from the contact, like fire from dry bits of wood, and when it has become visible to us, may settle it firmly in our own minds.

There is method in your proposal, he replied, and so let us do.

I proceeded therefore to ask: When two things, a greater and a less, are called by a common name, are they, in so far as the common name applies, unlike or like?

Like.

Then a just man will not differ from a just state, so far as the idea of justice is involved, but the two will be like.

They will.

Well, but we resolved that a state was just, when the three classes of characters present in it were severally occupied in doing their proper work: and that it was temperate, and brave, and wise, in consequence of certain affections and conditions of these same classes.

True.

Then, my friend, we shall also adjudge, in the case of the individual man, that supposing him to possess in his soul the same generic parts, he is rightly entitled to the same names as the state, in virtue of affections of these parts identical with those of the classes in the state.

It must inevitably be so.

CHAPTER VIII

ARISTOTLE

1. Analysis of the Process of Change

The process of change and transition which had been a puzzling problem throughout Greek thought is analyzed by Aristotle in terms of matter and form. His statement of the case is to be found in the following passages. (They are printed here in inverted order because out of their setting they read somewhat more easily thus):[1]

viii. Everything which comes into being is brought about by something, that is, by a source from which its generation comes. And it is composed of something. Now this latter is best described not as the absence of the thing but as the matter from which it comes. We have already defined what we mean by this. And it becomes a particular thing, as a sphere or a circle or some other thing. Now one does not "make" the material—as the bronze—of which a thing is composed; so one does not make the sphere, except in a secondary sense, in so far as the bronze circle is a circle and one makes it. For the act of making a particular thing is a process of making it out of some material in general. I mean that to make the bronze round

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[1]Aristotle, *Metaphysics,* Z, viii, vii; translated from the text of Christ.

Aristotle (384–322 B.C.) was born in Stagira in Thrace, and went to Athens in 366 to study under Plato, remaining for nineteen years. From 343–340 he was tutor to Alexander, later called "The Great." From 335 to 323 he had his own school at Athens, the Lyceum, and became one of the most revered of the ancient philosophers. He is famed for his writings in various fields, Logic, Metaphysics, Ethics, Politics, Rhetoric, etc.

is not to make the "round" or the "sphere," but quite a different thing—that of putting this form into what did not have it previously. If one made the "form," one would make it out of something else, for this would underly it, as when one makes a sphere out of bronze. This is done by making of a particular kind of substance, namely bronze, a special sort of thing, namely a sphere. And if one makes this "sphere" also in the same way, it is evident that he will make it in the same manner, and the process of origination will go on to infinity. It is evident therefore that the form, or whatever one ought to call the shape of the perceived object is not "made." It does not "become," nor does it have an origin. Nor is there any for the essential conception of a thing. For this is what is implanted in another entity, either by training or by nature or by force. But one does cause the "bronze sphere" to *be*. For one makes it out of the bronze and the form of "sphere." One puts the form into this matter, and it is then a bronze sphere. But if there is an origin for "the idea of sphere in general" it will be something generated from something else. That which is generated will have to be analyzed again in turn, and each reduced to something further, then that to something else; I mean in one aspect into matter, in another into form. A sphere is a figure whose surface is everywhere equally distant from a center. One aspect of it is the material into which the form is to be put; the other the form which is to be put into it. The whole is what results, namely, the bronze sphere.

It is evident from what we have said that the part which is spoken of as the form or the essence does not originate; but the combination which derives its name from this does; and in everything which originates there is matter, and it is now this thing, now that. Is there then a "sphere" beside the particular spheres? Or is there a "house" beside the houses of brick? Or would there never be any par-

ticular things if this were so? The genus gives the general character, but is not a definite particular thing. But one makes and produces such and such a thing out of "this" particular substance. And when it has been produced it is "this thing of such and such a kind." This concrete existing thing is "Kallias" or "Socrates," just as the other was "this bronze sphere," but it is man and animal in general just as the other was a bronze sphere in general. It is evident then that the formal principle, as some are accustomed to speak of forms, if they are something aside from the particulars and beside the acts of generation and the essences, is of no use. For not by virtue of them would there be particular instances of them. In some cases indeed it is evident that that which causes is the same sort of thing as that which is caused, yet not identically the same, nor one numerically, but in form—as in the case of the products of nature. Man begets man, (and so it is), except where something arises of different nature, as when a horse begets a mule. Yet these cases also are really similar to the others; but what is common to a horse and an ass has not been given a name as a "proximate genus"; perhaps it would be "mule."

So it is evident that it is not at all necessary to supply forms as patterns, (for they would have to be found in these cases especially, since these are certainly substances). The begetter is adequate to the production of the effect and to the embodiment of the form in the matter. And the compound—such and such a form in this flesh and these bones—is Kallias or Socrates. They differ because of their matter, for it is different, but they are the same in form. For the form is indivisible.

vii. Of things which come into existence some are generated by nature, some by art, some by chance. And all things which are generated are generated by something and from something and as some particular thing. Some

particular thing, I mean with respect to each category, such as substance, quantity, quality or place. Origination by nature occurs in the case of those things whose origin is through the processes of nature. The substance of which they are formed we call matter; the source from which they arise is some thing in nature; the kind of thing which they become is "man" or "plant" or some other thing of the kind which we are especially accustomed to call "substances." All things which have an origin, whether by nature or by art, have a material. Each of them might exist or not exist; and the seat of this double possibility is the material part of them. In general that out of which and in accordance with which they arise is some natural thing. For that which comes into being has some natural character as that of a plant or an animal. And that under the influence of which it arises is a natural object which with reference to its form may be said to be homogeneous. And this form is found in another individual; as one man begets another man. In this way arise the things which come about by nature; but other originations are called artificial creations.

Artificial creations result from acquired skill, or external power, or deliberate planning. Some of these also come about spontaneously and by chance, in nearly the same manner as some things are generated by nature. For there some of the same kind of things arise in some instances from seed, in other instances without seed. Into these things we shall have to look later; but those things arise by art, the forms of which are in some one's mind. And by form I mean the essential conception of the thing and its fundamental essence. And indeed in a certain sense opposites have the same form. The opposed essence is that of the absence of the given thing, as health is the absence of disease. For by the absence of the former disease becomes manifest. But health is the determining principle,

in the soul and in knowledge. The healthy condition of one who has been ill comes about as follows: since such and such a condition is health it is necessary, if there is to be health, that some other condition exist, as uniform temperature, and if there is to be uniform temperature then warmth. And in this manner one continues one's analysis until one arrives at a certain thing which one can do as the first step. The activity which comes from this is an artificial productivity, in this case the production of health. So in this sense it is true that health comes from health, and a house from a house, that which has material content from that which does not. The essence of the physician's art and of the builder's art is the form of health and the form of the house. And the essence without matter I call the essential conception.

One aspect of the processes of production and of action is called the intellectual contemplation, the other the practical effecting of them. The one which has to do with the principle and the form is intellectual contemplation. That which refers to the aim of the intellectual contemplation is the practical application. And each of the intermediate steps has the like phases. For instance, if one will be healthy it is necessary to have an even temperature. What does the maintenance of an even temperature involve? This: it will result if one is kept warm. And what will do this? The following; but this exists only as a possibility. Yet it is in one's power. So then the action and the source from which the development of the healthy state springs, if it is from an artificial source, is the "form" in one's mind; but if from chance, still it results from something which at some time or other is the source of activity used by him who acts with conscious skill. In the case of medical treatment perhaps the source is in causing warmth, and one produces this by rubbing. So the warmth in the body is either a part of health or there follows it

something of a kind which is a part of health, or is so after some intermediate stages. And this last step is what causes the essential part and what is thus a part is to health as the stones are to a house; and likewise with other things.

As we have said, nothing can arise unless something pre-exists. Therefore that some part necessarily exists is evident. For the material part is a part. And it enters into a thing and pervades its changes. And so it is also with the things mentioned in our statement. We tell what bronze circles are by distinguishing two phases; saying of the material that it is bronze; and of the form that it is such and such a shape. And this is the genus under which it is placed first. The brazen circle includes matter in its notion. Some things receive names from the matter out of which they come when they arise, being said, of course, to be not "that substance" but "of that substance," as the image of a man is said to be not "stone" but "of stone." But a healthy man is not designated from that out of which he has come. The reason for this is that he has come from a condition opposite to his present one, as well as out of a substance which we call his material being. Thus it is both a man and a sick man who becomes well. But the statement is made rather with reference to the negative state; one becomes healthy from being ill rather than from being a man. Consequently the well person is not said to be ill, but a man and a healthy man. But in those things to which there is no evident opposite, or none with a name, as of any kind of form in bronze, or the bricks or boards of a building, generation is said to be out of these, as in the other case it was out of the condition of illness. Wherefore, as in that case that from which this comes is not used in the name, so here the image of the man is not called "wood" but is styled "wooden," or "brazen" not "bronze," or "stony" not "stone"; and a

house is said to be "of brick" not "bricks." Nor does the image come from wood, nor the house from bricks, if one looks at the matter exactly; and one could not say this without qualification, for it is necessary that generation come through the changing of a source—through its not remaining permanent. For these reasons then we use such modes of expression.

2. Grades of Soul

Aristotle's theory of levels of soul is well represented by the following section from his work on *Psychology:* [2]

Some organisms possess all the capacities of the soul mentioned, as we have said, others possess some only, and some possess one alone. These capacities we mentioned as the nutritive, the appetitive, the locomotive, and the intellective. The nutritive alone belongs to plants; this and the sensitive to other organisms. But if any organism has sensation it also has appetite, for desire, anger, and volition are phases of appetite; and all animals have one of the senses—touch; but those which have any sensation know pleasure and pain, the sweet and the bitter, and whatever has these has desire also; for this is a longing for the pleasant. In addition they have the nutritive sense; for touch is the sense involved in nutrition, and all animals are nourished by what is dry or moist, warm or cold; and touch is the sense for perceiving these, and of other things incidentally. Sound, color, and smell do not contribute anything to nourishment. But taste is a variety of touch. Hunger and thirst are forms of desire: hunger—for the dry and warm, thirst—for the cold and moist. And taste is a kind of relish to these. We shall have to go into more detail regarding these later, but now let it suffice to say that appetite belongs to animals having the sense of touch.

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[2] Aristotle, *Psychology,* Book II, Ch. iii; translated from the text of Biehl.

As to mental imagery the situation is not clear, and will have to be investigated later. To some in addition belongs the power to move from place to place, and to others also understanding and reason—as to men, and to other species on the same level or of higher rank, if such there be.

Evidently one might give the same account of soul as of "form." For as in the one case there is no form beside the triangle, etc., so there is no "soul in general" beyond those mentioned. And as there would be a common definition in the case of the forms, one which would fit all, but not peculiar to any one form, so in the case of the types of soul mentioned. Wherefore it would be ridiculous both in this case and in other similar cases to seek a common conception which would be an appropriate description of no real thing nor accord with anything of any particular and specific kind, but would ignore all such. There is an analogy between the properties of "forms" and the facts regarding the soul. For the more elemental is implicit in the derivative in the case both of forms and of living beings, as the triangle in the square, and the nutritive capacity in the sensitive. So we must examine in each separate case what is the nature of the soul of each, as of the plant, and of man, or of an animal. We must consider why they stand in this succession. For without the nutritive the sensitive does not exist. But the nutritive is separate from the sensitive in plants. Again none of the other senses exists without that of touch, but touch does exist without the others. For many animals have neither sight nor hearing nor sense of smell. And of those which have the senses some have the ability to move from place to place, and some have not. And finally a very few have reasoning power and understanding. Those mortal creatures which possess reasoning power possess also all the rest, but reasoning power does not belong to all those which have each of the others. Some have not even mental imagery, though

others live by means of this alone. Concerning the theoretical reason a special account must be given. It is evident therefore that this sort of account, distinct for each particular form is most fitting in the case of the soul.

3. Epistemology

Aristotle's epistemological realism may be represented by the following passage, also from the *Psychology:* [3]

With regard to the part of the soul with which one knows and thinks, whether it is distinct in reality or only conceptually, we must ask what is its distinguishing feature, and how thinking occurs. If thinking is like perceiving, it is a process of passively submitting to an intelligible object, or something of this sort. Then it must be without experience but capable of receiving the form, and it will be potentially this form although not actually it; and as the capacity for perception is to the thing perceived—so also will reason be to that which is intelligible. Then since reason comprehends all things it must be unmixed with any, as Anaxagoras says, in order that it may master them; that is, in order that it may acquire knowledge. For some other kind of substance if interposed between would hinder and prevent its knowing. So no special nature belongs to it except this of "potentiality." The part of the soul which is called reason (I call reason that by which the soul understands and conceives) is not actually any of the existing things until it thinks them. Hence it is reasonable to believe that it is not mixed with the body, for it would take on a certain quality, like coldness or warmth; this would be true, also, if it had a kind of organ as has the faculty of sensation. But in fact it is no one of these. And they are right who say the soul is the seat of forms, except that the whole of it is not, but only the

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[3] *Ibid.*, Book III, Chs. iv and v.

intelligent part, and the forms are there not actually but potentially.

That inability to function does not occur alike in the case of the faculty of sense and of reason is evident from the consideration of the sense organ and the sense process. For sense can not function in consequence of too strong a stimulus, as sound in the midst of too strong sound stimulations, nor from intense colors or smells can it gain the sense of vision or smell. But the reason when it deals with something very intelligible does not think the inferior details any the less clearly but all the better. Sense is not independent of the body, but reason is. But when it becomes identical with each thing in the way in which a knower is said to do when he is exercising his knowledge (this happens when he is able to act for himself), even then in a sense it is still a potentiality, though not indeed in the same sense as before learning or discovery; but it is still capable of thinking itself.

Size (in particular) is different from size (in general) and water (in particular) from water (in general); so it is in other cases; though not in all, for in some cases they are one and the same. So in the case of flesh in general and in particular, one distinguishes them either by different faculties or by the same differently applied; for flesh is not immaterial, but like "the snubnosed" is a particular form in a particular embodiment. By the perceptual faculty then one discriminates the warm and the cold and those things of which flesh is a certain expression. One judges the notion "flesh" either by some other quite different faculty or by one which is to the faculty of sense as a crooked line is to a straight one.

Again in the case of abstractions "the straight" is like "the snubnosed"; for it is associated with what occupies space; but the essential notion is a different thing, if straight in general is different from straight in particular.

Grant the duality; then one judges by another faculty or one differently applied. And in general, then, as things are distinguishable from their matter, so also are the things relating to mind.

One might raise the difficulty, if the reason is simple and nonsensuous and has nothing in common with anything, as Anaxagoras says, as to how it will think if thinking is passively submitting to something. For it is in so far as there is some feature common to both that one thing acts upon another. Further, one might ask whether it itself is thinkable. For either mind will belong to other things if it is not itself intelligible by virtue of something else, and what is intelligible is always the same in kind, or it will have something mixed with it which makes it intelligible like other things.

It was said above that passivity is due to some common feature, because the mind is potentially the objects of thought, though nothing actually before it thinks. And as is a tablet upon which nothing has been actually written so must be the nature of the mind. And it is itself thinkable as other thinkable things are. In the case of material things the thinker and the object thought merge; for theoretical knowledge and the object of such knowledge are identical. (And we shall have to examine the reason why we do not always think.) In material things the objects of thought are potentially present. So that mind is not subject to them (for mind is potentially of such forms independently of matter), but the object of thought is subject to mind.

V. As in all nature there is the material factor which embodies every general "form" (it being all forms potentially), and there is another element which constitutes the cause and the efficient factor, determining all after the manner in which theoretical skill affects the matter it works upon, in the soul also there must be different phases ana-

logous to these. 'And mind is in one aspect of such character as to be able to identify itself with all things, in another such as to create all things, an influence like light; for in a sense light makes potential colors become actual colors. And this reason is separate and unmixed with anything, free from the factor of sense, and in essence actual. Now the active is always of higher rank than the passive, and the first principle is superior to matter. Actual knowledge is identical with the thing known; but potential is prior in time in particular cases, though not absolutely in time. And thought does not sometimes occur and sometimes not. But when by itself it is pure in its nature, and this alone is immortal and eternal. We do not remember it because it has no sense content; but the sensuous soul is mortal and without the other thinks nothing.

4. The Highest Good

The keynote to the ethics of Aristotle is to be found in the following passage from the *Nichomachean Ethics:*[4]

Perhaps it appears to be uttering a commonplace to say that happiness is the highest good, and what we want is a clearer statement of what happiness is. Very likely this might be done if we could discover the characteristic activity of man. For, as for the flute-player, sculptor, or any other artisan, or in general for those who have a special work or activity, goodness and excellence lie in that work, so it would seem to be with man, if there is any special activity characteristic of him. Is there a specific work and activity for a carpenter or shoemaker, but none for man as "man"; so that he is without a specific function? Or, just as for the eye, hand, foot, or any other of the members, there appears to be some function, may one

[4] Aristotle, *Nichomachean Ethics,* Book I, Ch. vii, 9–16; translated from the text of Burnet.

also beside all these set down a function for "man"? What would this be? "Life" appears to be common to man with plants; and something distinctive is what we are seeking. We must set aside then the life of mere nourishment and growth. The "sentient" life might be considered next; but this also appears to be common to man along with the horse, the ox, and every other animal.

There is left only the activity of the rational faculty. And since this is spoken of in two different ways we must set it down as that in actual operation; for this is admitted to be superior (to merely possible activity). Now the function of man is activity of the soul in accordance with reason—or at least not without a possible reason. We are saying that the characteristic activity of a thing and of this thing when working well are identical in kind, as in the case of a musician and of a good musician, and that this is so absolutely in the case of all things, the excess in excellence being added to the function; for it is the function of a musician to play and of a good one to play well. If this is so, and we set down the function of man as a kind of life, an activity of the soul, and more specifically action in the light of reason, and if it is the mark of a good man to do these things rightly and well, each one being perfected in the line of his own excellence, then the good of man is activity of the soul according to its specific excellence; or if its excellences are many—in accordance with the best and completest. And furthermore —in a complete life. For one swallow, or one day, does not make spring. So neither does one day nor a short time make a man happy and good.

CHAPTER IX

STOIC PANTHEISM

1. Epicurean Hedonism

A suggestion of the spirit of Epicurean philosophy is contained in the following passage from the writings of Diogenes Laertius:[1]

It is right then for a man to consider the things which produce happiness, since, if happiness is present, we have everything, and when it is absent, we do everything with a view to possess it. Now, what I have constantly recommended to you, these things I would have you do and practice, considering them to be the elements of living well. First of all, believe that God is a being incorruptible and happy, as the common opinion of the world about God dictates; and attach to your idea of him nothing which is inconsistent with incorruptibility or with happiness; and think that he is invested with everything which is able to preserve to him this happiness, in conjunction with incorruptibility. For there are gods; though our knowledge of them is indistinct. But they are not of the character which people in general attribute to them; for they do not pay a respect to them which accords with the ideas that they entertain of them. And that man is not impious who discards the gods believed in by the many, but he who applies to the gods the opinions entertained of them by the many. For the assertions of the many about the gods are not

[1] Diogenes Laertius, *op. cit.: Epicurus,* pp. 468–469.
Fot not on Epicurus, see p. 55.
Diogenes Laertius was a writer of the 3d century A.D.

anticipations (προλήψεις), but false opinions (ὑπολήψεις). And in consequence of these, the greatest evils which befall wicked men, and the benefits which are conferred on the good, are all attributed to the gods; for they connect all their ideas of them with a comparison of human virtues, and everything which is different from human qualities they regard as incompatible with the divine nature.

Accustom yourself also to think death a matter with which we are not at all concerned, since all good and all evil is in sensation, and since death is only the privation of sensation. On which account, the correct knowledge of the fact that death is no concern of ours, makes the mortality of life pleasant to us, inasmuch as it sets forth no illimitable time, but relieves us from the longing for immortality. For there is nothing terrible in living to a man who rightly comprehends that there is nothing terrible in ceasing to live; so that he was a silly man who said that he feared death, not because it would grieve him when it was present, but because it did grieve him while it was future. For it is very absurd that that which does not distress a man when it is present, should afflict him when only expected. Therefore, the most formidable of all evils, death, is nothing to us, since, when we exist, death is not present to us; and when death is present, then we have no existence. It is no concern then either of the living or of the dead; since to the one it has no existence, and the other class has no existence itself. But people in general at times flee from death as the greatest of evils, and at times wish for it as a rest from the evils in life. Nor is the not living a thing feared, since living is not connected with it; nor does the wise man think not living an evil; but, just as he chooses food, not preferring that which is most abundant, but that which is nicest; so, too, he enjoys time, not measuring it as to whether it is of the greatest length, but as to whether it is most agreeable.

. . . It[2] is for the sake of this that we do everything, wishing to avoid grief and fear; and when once this is the case, with respect to us, then the storm of the soul is, as I may say, put an end to; since the animal is unable to go as if to something deficient, and to seek something different from that by which the good of the soul and body will be perfected.

For then we have need of pleasure when we grieve, because pleasure is not present; but when we do not grieve, then we have no need of pleasure; and on this account, we affirm that pleasure is the beginning and end of living happily; for we have recognized this as the first good, being connate with us; and it is with reference to it that we begin every choice and avoidance; and to this we come as if we judged of all good by passion as the standard; and, since this is the first good and connate with us, on this account we do not choose every pleasure but at times we pass over many pleasures when any difficulty is likely to ensue from them; and we think many pains better than pleasures, when a greater pleasure follows them, if we endure the pain for a time.

Every pleasure is therefore a good on account of its own nature, but it does not follow that every pleasure is worthy of being chosen; just as every pain is an evil, and yet every pain must not be avoided; but it is right to estimate all these things by the measurement and view of what is suitable and unsuitable; for at times we may feel the good as an evil, and at times, on the contrary, we may feel the evil as good. And we think contentment a great good, not in order that we may never have but a little, but in order that, if we have not much, we may make use of a little, being genuinely persuaded that those men enjoy luxury most completely who are the best able to do without it; and that

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[2] *Ibid.*, pp. 470*f*.

everything which is natural is easily provided, and what is useless is not easily procured. And simple flavors give as much pleasure as costly fare, when everything that can give pain, and every feeling of want, is removed; and corn and water give the most extreme pleasure when any one in need eats them. To accustom one's self, therefore, to simple and inexpensive habits is a great ingredient in the perfecting of health, and makes a man free from hesitation with respect to the necessary uses of life. And when we, on certain occasions, fall in with more sumptuous fare, it makes us in a better disposition toward it, and renders us fearless with respect to fortune. When, therefore, we say that pleasure is a chief good, we are not speaking of the pleasures of the debauched man, or those which lie in sensual enjoyment, as some think who are ignorant, and who do not entertain our opinions, or else interpret them perversely; but we mean the freedom of the body from pain, and of the soul from confusion. For it is not continued drinkings and revels, or the enjoyment of female society, or feasts of fish and other such things as a costly table supplies, that make life pleasant, but sober contemplation, which examines into the reasons for all choice and avoidance, and which puts to flight the vain opinions from which the greater part of the confusion arises which troubles the soul.

2. Stoicism

The fundamental aspects of Stoic philosophy may be briefly seen in the following passages dealing with their metaphysics, epistemology and ethics: [3]

LXVIII. They think that there are two general prin-

[3] *Ibid.: Zeno,* pp. 308–311.
Zeno (340?—— B.C.) of Cyprus, founder of the Stoic School, had been a merchant, but lost his wealth, and betook himself to the consolations of philosophy, teaching in Athens, where he was held in high esteem.

ciples in the universe, the active and the passive. That the passive is matter, and existence without any distinctive quality. That the active is the reason which exists in the passive, that is to say, God. For that he, being eternal, and existing throughout all matter, makes everything. And Zeno, the Cittiaean, lays down this doctrine in his treatise on Essence, and so does Cleanthes in his essay on Atoms, Chrysippus in the first book of his Investigations in Natural Philosophy, towards the end, Archedemus in his work on Elements, and Posidonius in the second book of his treatise on Natural Philosophy. But they say that principles and elements differ from one another. For that the one had no generation or beginning, and will have no end; but that the elements may be destroyed by the operation of fire. Also, that the elements are bodies, but principles have no bodies and no forms, and elements too have forms.

Now a body, says Apollodorus in his Natural Philosophy, is extended in a threefold manner; in length, in breadth, in depth; and then it is called a solid body; and the surface is the limit of the body having length and breadth alone, but not depth. But Posidonius, in the third book of his Heavenly Phenomena, will not allow a surface either any substantial reality, or any intelligible existence. A line is the limit of a surface, or length without breadth, or something which has nothing but length. A point is the boundary of a line, and is the smallest of all symbols.

They also teach that God is unity, and that he is called Mind, and Fate, and Jupiter, and by many other names besides. And that, as he was in the beginning by himself, he turned into water the whole substance which pervaded the air; and as the seed is contained in the produce, so too, he being the seminal principle of the world, remained behind in moisture, making matter fit to be employed by himself in the production of those things which were to come after; and then, first of all, he made the four elements,

fire, water, air, and earth. And Zeno speaks of these in his treatise on the Universe, and so does Chrysippus in the first book of his Physics, and so does Archedemus in some treatise on the Elements.

LXIX. Now an element is that out of which at first all things which are are produced, and into which all things are resolved at last. And the four elements are all equally an essence without any distinctive quality, namely, matter; but fire is the hot, water the moist, air the cold, and earth the dry—though this last quality is also common to the air. The fire is the highest, and that is called aether, in which first of all the sphere was generated in which the fixed stars are set, then that in which the planets revolve; after that the air, then the water; and the sediment as it were of all is the earth, which is placed in the center of the rest.

LXX. They also speak of the world in a threefold sense; at one time meaning God himself, whom they call a being of a certain quality, having for his peculiar manifestation universal substance, a being imperishable, and who never had any generation, being the maker of the arrangement and order that we see; and who, after certain periods of time, absorbs all substance in himself, and then reproduces it from himself. And this arrangement of the stars they call the world, and so the third sense is one composed of both the preceding ones. And the world is a thing which is peculiarly of such and such a quality consisting of universal substances, as Posidonius affirms in his Meteorological Elements, being a system compounded of heaven and earth, and all the creatures which exist in them; or it may be called a system compounded of Gods and men, and of the things created on their account. And the heaven is the most remote circumference of the world, in which all the Divine Nature is situated.

Again, the world is inhabited and regulated according to intellect and providence, as Chrysippus says, in his

works on Providence, and Posidonius in the thirteenth book of his treatise on Gods, since mind penetrates into every part of the world, just as the soul pervades us; but it is in a greater degree in some parts, and in a less degree in others. For instance, it penetrates as a habit, as, for instance, into the bones and sinews; and into some it penetrates as the mind does, for instance, into the dominant principle. And thus the whole world, being a living thing, endowed with a soul and with reason, has the aether as its dominant principle, as Antipater, of Tyre, says in the eighth book of his treatise on the World. But Chrysippus, in the first book of his essay on Providence, and Posidonius in his treatise on Gods, say that the heaven is the dominant principle of the world; and Cleanthes attributes this to the sun. Chrysippus, however, on this point contradicts himself; for he says in another place, that the most subtle portion of the aether, which is also called by the Stoics the first God, is what is infused in a sensible manner into all the beings which are in the air, and through every animal and every plant, and through the earth itself according to a certain habit. And that it is this which communicates to them the faculty of feeling.

They say, too, that the world is one and also infinite, having a spherical form. For that such a shape is the most convenient for motion, as Posidonius says, in the fifteenth book of his Discussions on Natural Philosophy, and so says Antipater also in his essay on the World. And on the outside there is diffused around it a boundless vacuum, which is incorporeal. And it is incorporeal inasmuch as it is capable of being contained by bodies, but is not so. And that there is no such thing as a vacuum in the world, but that it is all closely united and compact; for that this condition is necessarily brought about by the concord and harmony which exist between the heavenly bodies and those of the earth. And Chrysippus mentions a vacuum in his essay

on a Vacuum, and also in the first book of his treatise on the Physical Arts, and so does Apollophanes in his Natural Philosophy, and so does Apollodorus, and so does Posidonius in the second book of his discourses on Natural Philosophy. And they say that these things are all incorporeal, and all alike. Moreover, that time is incorporeal, since it is an interval of the motion of the world. And that of time, the past and the future are both illimitable, but the present is limited. And they assert that the world is perishable, inasmuch as it was produced by reason, and is one of the things which are perceptible by the senses; and whatever has its parts perishable, must also be perishable in the whole. And the parts of the world are perishable, for they change into one another. Therefore, the world is perishable. And again, if anything admits of a change for the worse it is perishable; therefore, the world is perishable, for it can be dried up, and it can be covered with water.

Now the world was created when its substance was changed from fire to moisture, by the action of the air; and then its denser parts coagulated, and so the earth was made, and the thinner portions were evaporated and became air; and this being rarefied more and more, produced fire. And then, by the combination of all these elements, were produced plants and animals, and other kinds of things. Now Zeno speaks of the creation, and of the destruction of the world, in his treatise on the Universe, and so does Cleanthes, and so does Antipater, in the tenth book of his treatise on the world. But Panaetius asserts that the world is imperishable.

Again, that the world is an animal, and that it is endued with reason, and life, and intellect, is affirmed by Chrysippus, in the first volume of his treatise on Providence, and by Apollodorus in his Natural Philosophy, and by Posidonius; and that it is an animal in this sense, as being an

essence endued with life, and with sensation. For that which is an animal, is better than that which is not an animal. But nothing is better than the world; therefore the world is an animal. And it is endued with life, as is plain from the fact of our own soul being as it were a fragment broken off from it. But Boethus denies that the world is an animal.

Again, that the world is one, is affirmed by Zeno, in his treatise on the Universe, and by Chrysippus, and by Apollodorus, in his Natural Philosophy, and by Posidonius, in the first book of his Discourses on Natural Philosophy. And by the term, the universe, according to Apollodorus, is understood both the world itself, and also the whole of the world itself, and of the exterior vacuum taken together. The world, then, is finite, and the vacuum infinite.

LII. They [4] say that the first inclination which an animal has is to protect itself, as nature brings herself to take an interest in it from the beginning, as Chrysippus affirms in the first book of his Treatise on Ends; where he says that the first and dearest object to every animal is its own existence, and its consciousness of that existence. For that it is not natural for any animal to be alienated from itself, or even to be brought into such a state as to be indifferent to itself, being neither alienated from nor interested in itself. It remains, therefore, that we must assert that nature has bound the animal to itself by the greatest unanimity and affection; for by that means it repels all that is injurious, and attracts all that is akin to it and desirable. But as for what some people say, that the first inclination of animals is to pleasure, they say what is false. For the Stoics say that pleasure, if there be any such thing at all, is an accessory only, which nature, having sought it out by itself, as well as those things which are adapted to its constitution,

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[4] *Ibid.*, pp. 290–292.

receives incidentally in the same manner as animals are pleased, and plants made to flourish.

Moreover, say they, nature makes no difference between animals and plants, when she regulates them so as to leave them without voluntary motion or sense; and some things too take place in ourselves in the same manner as in plants. But, as inclination in animals tends chiefly to the point of making them pursue what is appropriate to them, we may say that their inclinations are regulated by nature. And as reason is given to rational animals according to a more perfect principle, it follows, that to live correctly according to reason, is properly predicated of those who live according to nature. For nature is as it were the artist who produces the inclination.

LIII. On which account Zeno was the first writer who, in his Treatise on the Nature of Man, said that the chief good was confessedly to live according to nature; which is to live according to virtue, for nature leads us to this point. And in like manner Cleanthes speaks in his Treatise on Pleasure, and so do Posidonius and Hecaton in their essays on Ends and the Chief Good. And again, to live according to virtue is the same thing as living according to one's experience of those things which happen by nature; as Chrysippus explains it in the first book of his Treatise on the Chief Good. For our individual natures are all parts of universal nature; on which account the chief good is to live in a manner corresponding to nature, and that means corresponding to one's own nature and to universal nature; doing none of those things which the common law of mankind is in the habit of forbidding, and that common law is identical with that right reason which pervades everything, being the same with Jupiter, who is the regulator and chief manager of all existing things.

Again, this very thing is the virtue of the happy man and the perfect happiness of life when everything is done

according to a harmony with the genius of each individual with reference to the will of the universal governor and manager of all things. Diogenes, accordingly, says expressly that the chief good is to act according to sound reason in our selection of things according to our nature. And Archidemus defines it to be living in the discharge of all becoming duties. Chrysippus again understands, that the nature, in a manner corresponding to which we ought to live, is both the common nature, and also human nature in particular; but Cleanthes will not admit of any other nature than the common one alone, as that to which people ought to live in a manner corresponding; and repudiates all mention of a particular nature. And he asserts that virtue is a disposition of the mind always consistent and harmonious; that one ought to seek it out for its own sake, without being influenced by fear or hope of any external influence. Moreover, that it is in it that happiness consists, as producing in the soul harmony of a life always consistent with itself, and that if a rational animal goes the wrong way, it is because it allows itself to be misled by the deceitful appearances of exterior things, or perhaps by the instigation of those who surround it; for nature herself never gives us any but good inclination.

LX. But[5] it seems that all goods are equal, and that every good is to be desired in the highest degree, and that it admits of no relaxation, and of no extension. Moreover, they divide all existing things into good, bad, and indifferent. The good are the virtues, prudence, justice, manly courage, temperance, and the rest of the like qualities. The bad are the contraries, folly, injustice, and the like. Those are indifferent which are neither beneficial nor injurious, such as life, health, pleasure, beauty, strength, riches, a good reputation, nobility of birth; and their con-

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[5] *Ibid.*, pp. 296*f*.

traries, death, disease, labor, disgrace, weakness, poverty, a bad reputation, baseness of birth, and the like; as Hecaton lays it down in the seventh book of his treatise on the Chief Good; and he is followed by Apollodorus, in his Ethics, and by Chrysippus. For they affirm that those things are not good but indifferent, though perhaps a little more near to one species than to the other.

For, as it is the property of the hot to warm and not to chill one, so it is the property of the good to benefit and not to injure one. Now, wealth and good health cannot be said to benefit any more than to injure any one: therefore, neither wealth nor good health are goods. Again, they say that that thing is not good which it is possible to use both well and ill. But it is possible to make either a good or a bad use of wealth, or of health; therefore, wealth and good health are not goods. Posidonius, however, affirms that these things do come under the head of goods. But Hecaton, in the nineteenth book of his treatise on Goods, and Chrysippus, in his treatises on Pleasure, both deny that pleasure is a good. For they say that there are disgraceful pleasures, and that nothing disgraceful is good. And that to benefit a person is to move him or to keep him according to virtue, but to injure him is to move him or to keep him according to vice.

They also assert, that things indifferent are so spoken of in a twofold manner; firstly, those things are called so, which have no influence in producing either happiness or unhappiness; such for instance, as riches, glory, health, strength, and the like; for it is possible for a man to be happy without any of these things; and also, it is upon the character of the use that is made of them, that happiness or unhappiness depends. In another sense, those things are called indifferent, which do not excite any inclination or aversion, as for instance, the fact of a man's having an odd or an even number of hairs on his head, or his putting

out or drawing back his finger; for it is not in this sense that the things previously mentioned are called indifferent, for they do excite inclination or aversion. On which account some of them are chosen, though there is equal reason for preferring or shunning all the others.

LXIV. They[6] say also that the wise man is free from perturbations because he has no strong propensities. But that this freedom from propensities also exists in the bad man, being, however, then quite another thing, inasmuch as it proceeds in him only from hardness and unimpressibility of his nature. They also pronounce the wise man free from vanity since he regards with equal eye what is glorious and what is inglorious. At the same time, they admit that there is another character devoid of vanity, who, however, is only reckoned one of the rash men, being in fact the bad man. They also say that all the virtuous men are austere, because they do never speak with reference to pleasure, nor do they listen to what is said by others with reference to pleasure. At the same time, they call another man austere too, using the term in nearly the same sense as they do when they speak of austere wine, which is used in compounding medicines, but not for drinking.

They also pronounce the wise to be honest-hearted men, anxiously attending to those matters which may make them better, by means of some principle which conceals what is bad, and brings to light what is good. Nor is there any hypocrisy about them; for they cut off all pretense in their voice and appearance. They also keep aloof from business; for they guard carefully against doing anything contrary to their duty. They drink wine, but they do not get drunk; and they never yield to frenzy. Occasionally, extraordinary imaginations may obtain a momentary power over them, owing to some melancholy or trifling, arising not according

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[6] *Ibid.*, pp. 301*ff*.

to the principle of what is desirable, but contrary to nature. Nor, again, will the wise man feel grief; because grief is an irrational contraction of the soul, as Apollodorus defines it in his Ethics.

They are also, as they say, godlike; for they have something in them which is as it were a God. But the bad man is an atheist. Now there are two kinds of atheists; one who speaks in a spirit of hostility to, and the other, who utterly disregards, the divine nature; but they admit that all bad men are not atheists in this last sense. The good, on the contrary, are pious; for they have a thorough acquaintance with the laws respecting the Gods. And piety is a knowledge of the proper reverence and worship due to the Gods. Moreover they sacrifice to the Gods, and keep themselves pure; for they avoid all offenses having reference to the Gods, and the Gods admire them; for they are holy and just in all that concerns the Deity; and the wise men are the only priests; for they consider the matters relating to sacrifices, and the erection of temples, and purifications, and all other things which peculiarly concern the Gods. They also pronounce that men are bound to honor their parents, and their brethren, in the second place after the Gods. They also say that parental affection for one's children is natural to them, and is a feeling which does not exist in bad men. And they lay down the position that all offenses are equal, as Chrysippus argues in the fourth book of his Ethical Questions, and so say Persaeus and Zeno. For if one thing that is true is not more true than another thing that is true, neither is one thing that is false more false than another thing that is false; so too, one deceit is not greater than another, nor one sin than another. For the man who is a hundred furlongs from Canopus, and the man who is only one, are both equally not in Canopus; and so too, he who commits a greater sin, and he who commits a less, are both equally not in the right path.

CHAPTER X

MYSTICISM—NEO-PLATONISM

The system of Plotinus is contained in the *Enneads* which have come down to us in somewhat disorganized form as gathered together by his pupil Porphyry, some of the leading passages of which are translated in the following:[1]

1. On the One

All things that exist do so by virtue of "unity"—in so far as they exist in any ultimate sense and in so far as they may be said to be real. For what would anything be if it were not "one"? Without the unity of which we speak things do not exist. There can be no army which is not a unit, nor a chorus, nor herd, unless each is "one." Neither is there a household or ship without unity; for the house is a unit and the ship is a unit, and if one took away the unity the household would no longer be a household nor the ship a ship. Continuous magnitudes would not exist if there were no unity to them. When divided, in so far as they lose unity they lose existence. So also with the bodies of plants and animals, each of which is a unit, if unity is lost—being broken up into multiplicity—they lose the being which they had, and no longer continue as they were. And they become other things even then only in so far as

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1 Plotinus, *Enneads*, IX, 1; translated from the text of Kirchhoff. Plotinus (204–269), born in Egypt and educated in Alexandria, traveled in Persia, then became a teacher in Rome in 244. His works, written not until he was an old man, were collected by his pupil, Porphyry, into six *Enneads*. They influenced Mediaeval Christianity through St. Augustine.

these have unity. Similarly there is health when the body is harmonized into unity, and beauty when the essence of unity controls the parts, and virtue in the soul when it is unified and brought into a single harmonious whole.

There [2] must be something prior to all, simple, and different from the things which are posterior to it, self-existent, unmingled with the things which come from it, and yet able in another way to be present with the others, being really one, not something else first then secondarily one, of which it is false even that it is one; but of this One no description nor scientific knowledge is possible. Indeed it must be said to be beyond "being"; for if it were not simple, without any composition and synthesis, and really one, it would not be a first principle. And it is wholly self-sufficient by virtue of its being simple and prior to all things. What is not first needs that which is prior to itself, and that which is not simple demands those simple elements which are within it, that it may be composed of them. Such a One must be unique, for if there were another such both together would constitute a larger unit. For we hold that they are not two bodies nor is the Primary One a body. For no body is simple, and a body is subject to generation; it is not an ultimate principle. The ultimate principle is unoriginated, and being incorporeal and really one it is able to stand first.

Since [3] substances which have an origin are of some form (for no one could say anything else of what is generated from the One), and since it is not any particular form but all, without exception, the first principle must be formless. And being formless it is not substance; for substance must be particular; and a particular is determinate. But this can not be regarded as particular, for it would not be a

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[2] *Ibid.*, VII, 1.
[3] *Ibid.*, XXIX, 6.

principle, but merely that particular thing which you may have called it. If then all things are included among what are generated, which of them will you say is the first principle? Only what is none of them could be said to stand above the rest. But these constitute existing things and Being in general. The First Principle then is beyond Being. To say that it is beyond Being does not assert it to be any definite thing. It does not define it. Nor does it give it a name. It applies to it only the appellation "not-this." In doing so it nowhere sets limits to it. It would be absurd to seek to delimit such a boundless nature. He who wishes to do this prevents himself from getting upon its track in any wise, even little by little. But just as he who wishes to see the Intelligible must abandon all imagery of the perceptible in order to contemplate what is beyond the perceptible, so he who wishes to contemplate what is beyond the Intelligible will attain the contemplation of it by letting go everything intelligible, through this means learning *that* it is, abandoning the search for *what* it is. To tell what it is would involve a reference to what it is not, for there is no quality in what has no particular character. But we are in painful doubt as to what we should say of it; so we speak of the ineffable and give it a name, meaning to endow it with some significance to ourselves so far as we can. Perhaps this name "The One" implies merely opposition to plurality. . . . But if The One were given positive content, a name and signification, it would be less appropriately designated than when one does not give any name. It may be said that description of it is carried thus far in order that he who seeks it beginning with that which indicates the simplicity of all things may end by negating even this, on the ground that it was taken simply as the most adequate and the nearest description possible for him who used it, but not even this is adequate to the revelation of that nature, because it is inaudible, not

to be understood through hearing, and if by any sense at all by vision alone. But if the eye that sees seeks to behold a form it will not descry even this.

2. Emanation

If[4] there exists anything beside the First Principle it must be derived from it, either immediately or through connection with it by way of what is between them; and there must be a succession of things of a second and a third order, the one dependent upon the first, the other upon the second. . . . If then there be any second thing beside the First, it can not be simple; for the one would then be many. Whence then is this latter? From the First; it does not exist by chance; for then the First would not be the Principle of all things. How then does it come from the First? If the First is perfect, the most perfect of all, and the primary power, it must be the most powerful of all things, and other powers must resemble it in so far as they have power at all. Now in the case of other things we see that whatever reaches its perfection becomes creative, and does not permit itself to remain alone, but creates another. Not only is this true in the case of what has power of choice, but also those things which produce without choice, even lifeless things imparting their being so far as they are able; for example, fire warms, snow cools, and drugs work their effects upon other things, and so in all other such cases, working after the manner of the First Principle to their utmost capacity in duration of influence and in excellence of quality. How then could the Most Perfect and Supreme Good remain by itself as if begrudging its influence or lacking power—when it is the generator of all? How could it then be the First Principle? And something must be begotten of it if there is also to be any of those things which

[4] *Ibid.*, VII, 1.

are sustained by it. For that they should come from it is unavoidable. The begetter must be of highest rank; and that which is begotten next, and is second in rank to it, must be superior to the rest.

The[5] One is all things and yet not one of them. The source of all things is not identical with all, and yet in a sense it is; for from it things sprang forth as it were. Rather, it is not yet all, but will be. How then could all things spring from the One, when it is simple, presenting no variety nor duplicity whatever in it? It is because there was nothing in it that all things sprang from it. And in order that the real might exist it was itself not real, but the generator of the Real. And this was as it were the first act of generation. Being perfect in that it sought nothing, possessed nothing, and wanted nothing, it overflowed, and its superabundance caused the creation of another essence. This product turned back toward it, received fullness of being, began to reflect upon itself, and thus became mind. Its position in relation to the One made it real, its contemplation of itself made it mind. Since it has taken its stand so that it may contemplate itself it has become both mind and reality at once.

Thus then being like the First Principle, it creates likenesses, pouring forth its abundant power. And this is a likeness of it just as that which is prior to it produced a likeness of itself. And this development of essence is soul, becoming this without the other's being destroyed thereby. For mind originated without affecting that which preceded it. The soul, however, does not create without being affected at all, but by changing it begot a likeness. Looking to the source from which it came it receives fullness of being; but going forth into another movement in the opposite direction it generates an image of itself—sensation

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[5] *Ibid.*, XI, 1, 2.

and such life as is found in plants. But nothing is detached or cut off from that which preceded it. Wherefore the soul of man seems to extend down even to the level of plants. In a certain sense it does because a part of it is in plants. It is indeed not all in plants, but it is generated in plants so far because it descended thus low, forming another level of substance in its process, and in eagerness for what is below. For that which is prior to this and dependent upon mind allows mind to remain by itself.

So procession occurs from the first to the last, each product being left in its own place, that which is generated from it receiving the next lower rank.

How[6] must we conceive this Immovable? We must imagine a radiance proceeding from it without affecting it, like the bright light surrounding the sun, being continuously generated from it without its being affected. And all real things so long as they last give off from their substance a peculiar emanation dependent upon them, surrounding them and proceeding from their power, being a likeness as it were of the original from which it sprang. Fire gives off heat. Snow does not retain its coldness within itself alone. But especially do fragrant things illustrate this; for so long as they last there goes forth something from them into the surrounding air, an emanation which all things near enjoy.

3. Intellect

All[7] things which have attained their perfection procreate. That which is eternally perfect eternally begets something, and that a thing eternal. But it begets something inferior to itself. What then must we say about the Most Perfect? Nothing arises from it except what is next greatest after it. But the greatest and second after it is

[6] *Ibid.*, X, 6.
[7] *Ibid.*, X, 6, 7.

mind. For mind contemplates it and feels need of it alone. But the Most Perfect has no need of mind. That which is begotten of what is superior to mind is mind, and mind is superior to all other things; other things are posterior to it. . . . But mind contemplates its source not because it is separated from it; but because it is next after it and there is nothing between; and this is true also in the case of soul and mind. Everything has a longing for and loves that which begot it, and especially when there are only the one that begot and the one begotten. And when the Supremely Good is the one who begot, the one begotten is necessarily joined to Him so intimately that it is separated only in so far as it is a second being.

We say that mind is an image of the First Principle; but we must speak more clearly. First, that which is begotten must be in a sense that which begot it, and retain many features of it and be a likeness of it as the light is of the sun. But that other is not mind. How then does it generate mind?—In that it turned back upon it and beheld itself, and this contemplation is mind.

Let [8] us understand then that intelligence existed without connection with any particular, nor acting upon anything, so that it was not a specialized intelligence, but was like knowledge before it takes a particular form, and generic knowledge prior to any particulars under it. Knowledge in general, though no one of the particulars, is the potentiality of all, and each of them is that knowledge embodied, and potentially it is all things; and with intelligence in general it is so. Those forms are generic which lie potentially within the whole, and which, while including what is of special form, are potentially the whole. For the whole is predicated of the part, but not the part of the whole. The latter must remain unrestricted, by itself. So in a

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[8] *Ibid.*, XXXIX, 50.

sense mind as a whole must be said to exist prior to the actual particulars, in a sense the particulars prior, they being pervaded by the universal, and mind in general being the source of supply for the particulars and on the other hand their potentiality and containing them in the universal. They on the other hand which are partial contain the universal as particular sciences contain science in general. The Great Mind exists of itself; and each particular intelligence by itself as partial; the partial are involved in the whole and the whole in the parts. Each exists by itself and also in the other, and the other is by itself and in them; and all are potentially in it, which exists by itself and is actually all at once but potentially each one apart, and the particulars are actually just what they are but potentially the whole. In so far as they are what they are said to be they are actually that; in so far as they are that genus they are potentially it. But in so far as mind is genus it is the potentiality of all the forms which are under it though actually no one of them, but all are latent in it. In so far as it actually is what it is prior to any special form, it is not particular. But if they are to be in actuality such as they are in general form some power from it must become the cause.

When[9] life is rational and not an imperfect actuality it omits none of the things which we find to be works of reason, but it has all things in its power, holding them as real and as intelligence would. Mind holds them as in reflective thought, but not in discursive reason; and nothing is omitted which is in any degree rational. But there is as it were one Reason, supreme, perfect, embracing all, entering into all from its own original being, or rather which has always entered into them in such a way that the process is never evident. For absolutely everywhere

[9] *Ibid.*, XXXIX, 51.

whatever one would find in nature as a consequence of deliberation this one would find existing in reason without deliberation, so that one would think a deliberating mind had created what is, as in the case of the principles which produce living things. For as the most careful reasoning would calculate as accurately as possible that things should be so are they in the principles which exist prior to deliberation.

4. Soul

Soul [10] is an image of intelligence. As the word uttered is the likeness of the word in the mind so also is soul the expression of intelligence, and its whole actualization, the life which it sends forth as the substance of another type of existence, just as of fire one part is the heat which remains with it the other that which it gives off. We must conceive it in that case not as leaving it, but as partly remaining within it, partly constituting another existence. Being therefore originated from intelligence soul is intelligent, and its intelligence is shown in reasonings, and its perfection is derived from intelligence as from a father who nourishes the offspring he begot—an imperfect thing in comparison with himself. Its basis, then, is in intelligence and it is the reason expressed in actuality when intellect is contemplated by it. When it looks in upon reason it has within itself as its own that which it is thinking of and realizing. And we must say that those alone are the true activities of the soul, which are intellectual and from within. Inferior things are from elsewhere and are accidents of such a soul. Mind then makes the soul much more divine both through being its progenitor and by its presence within it. For nothing separates them except the difference of their natures, so that they are in

[10] *Ibid.*, X, 3.

contact and are as the one content the other form. The matter of intelligence is beautiful being of intellectual form and simple.

In [11] the intelligible world there is true Being. Mind is the best part of it. But souls are also there; for they are there and come from there. And that world contains souls without bodies, but this one contains those which have taken on bodies and have been divided among them. There all mind is together, and no separation or partition has been made; but all souls are together in the one world, without spatial separation. Mind is always undivided and not parted. And soul is there undivided and unseparated. But it has a nature subject to division. And its division is the process of descending and entering into bodies. It is reasonable to say that it is divisible in connection with bodies, because thus it descends and is divided. How then is it also indivisible? It has not wholly descended, but there is a part of it which has not come down, which has not the nature to be divided. That which is indivisible and that which is divisible in connection with bodies are the same through its being both above and below and being suspended from there but having extended down to this realm as a radius from a center. Having descended hither it has the power of contemplation through the very same part through which it retains the nature of the whole. For not even here is it merely divisible, but in a sense also indivisible. For that part of it which is divided is indivisibly divided. For entering into the whole body without being divided it is divided in that it as a whole is in the whole body.

When [12] individual souls experience an intellectual desire and turn toward the source from which they originated, but have also a power extending to things below, (just as

[11] *Ibid.*, XXI.
[12] *Ibid.*, VI, 4.

light depends upon the sun above which does not grudge to dispense it to what is below it), they remain securely with the Whole in the intelligible realm. And in heaven they join with the Whole in its administration, as kings associate with a universal ruler in his administration without descending from their royal places; for they are then in the same state together. But descending from the Whole to a partial and separate existence and as it were being weary of associating with another each withdraws into an existence of its own. But when it has done this for some time, fleeing from the Whole and withdrawing by differentiation, and when it does not look to the Intelligible, becoming a particular it grows solitary and weak and troubled and looks to the individual. And through separation from the host on high, having attached itself to a particular body and fleeing all the rest, concentrating upon that one, which is buffeted by all things it both withdraws from the Whole and attends to the individual with circumstantial care, being already attached to it, and attending extraneous things, associating with and entering deeply into it. Then there comes to it what may be called a molting, and it becomes entangled in the bonds of the body losing the innocence which was its own in the administration of the upper realm, in the region of the universal soul.

5. Matter

Emanations[13] from the other levels of Reality occur without their being disturbed, but the soul, we have said, is modified while generating the sense realm derived from it, and nature as far down as plants. It has this nature even in us, but holds it in subordination since it is only partial; but when it enters into plants it is the sole con-

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[13] *Ibid.*, XV, 1.

trolling factor. This then begets nothing totally distinct from it; for there is no longer any life beyond it; what is then begotten is lifeless. Everything which was generated before this was generated without form, but received form by turning toward that which begot it as toward its guardian; in this case that which is begotten can not be a form of soul; for it is not alive, but is absolutely indeterminate. Though in the prior cases also there is indefiniteness, still it is within their form, not entire indeterminateness, but as it were with reference to their perfection; but the present indeterminateness is absolute. Attaining its perfection it becomes body by taking on the form which is fitting to its potentiality, as the receptacle of that which begot and nourished it, it being the very last feature in the body derived from on high but abiding on the lowest level below.

But [14] we must return to the consideration of matter as underlying substrate, and to the things which are said to be made of it, in order that the unreality and neutral character of matter may be recognized. Now it is not a concrete body, since "body" is derivative and compound, and matter along with another factor composes body. From this it has been given the same description (as has Reality) with reference to its incorporeality; because both Being and matter are different from bodies. Being not soul neither is it mind nor life nor form nor reason nor limit; for it is unlimited; nor potentiality, for what can it do? But falling outside all these it could not rightly receive the predicate of "being"; "non-being" one might reasonably call it, and that not in the sense in which movement or position is non-being; but really non-being, a mere image and appearance of mass and a longing for substance; never standing still, invisible in itself, and ever escaping him

[14] *Ibid.*, XXV, 7.

who would see it, existing when one does not look at it, but seen by no one who intently gazes at it; always displaying contradictions in itself, being both large and small, less and more, lacking and superabounding, an image not abiding nor capable on the other hand of fleeing. It is not capable of doing even this because it has received no strength from intelligence, but is completely lacking in being. Wherefore it proves false to all its promise, for if it appears large it is really small, and if more it is less, and its existence is in appearance, being non-existence, like a fleeting toy. Whence also the things which seem to be in it are toys, mere images within an image, as in a mirror things situated in one place appear in another and it seems full though containing nothing, and all are mere appearances.

The likenesses and images of real things which enter into and come forth from it do so in a formless image, and because of its formlessness when they are seen in it they appear to be producing something in it, but they really produce nothing, for they are powerless and weak and possessed of no firmness. And since it also has none they go through without affecting it as through water or as if one were introducing forms into the so-called "vacuum." On the other hand if the things seen in it were of the same kind as those from which they came, perhaps one might suppose that that which takes form in them was effected by them—attributing to them some of the power of the source which emitted them. But now since the things which cast the reflections are of one kind and those which are seen in it are of a different sort, from these facts one can discern the falsity of its receptiveness, that which is seen therein being false and possessing no similarity at all to the source which caused them. Being themselves weak and false, and falling into a false substance, as in a dream or in water or a mirror, they leave it necessarily

unaffected. And yet in the cases mentioned the things seen therein possess a similarity to the things which see them.

It[15] is possible thus also to understand the necessity of evil. For since the good is not alone existent it is necessary that through departure from it, or, if one should wish thus to express it, through continual descent or withdrawal from it, the final stage (one beyond which it is not possible for anything further to be generated), should be evil. That which follows the First exists of necessity; so also the last, and this is matter, and it contains nothing more of the First. This is the necessity of evil.

6. Sin and Salvation

Consider[16] a soul that is deformed, intemperate, unjust, full of the utmost desires, of the greatest agitation, in fear because of its cowardice, in envy because of meanness, thinking all the thoughts which mortal and low characters think, distorted in every way, fond of impure pleasures, living a life of all kinds of bodily experiences, regarding its deformity as pleasant. Shall we not say that this very deformity has come upon it as extraneous evil which has outraged it, and made it unclean, mingled with much evil, having no longer a pure life or feelings, but through the admixture of evil living an obscure life, deeply tinged with mortality, no longer contemplating what the soul ought to contemplate, no longer allowing itself to remain apart, but being attracted always toward the external, the low and the dark. Being impure, doubtless, and borne every way by the attractions of the things which appeal to the senses, heavily weighted with the body, close linked with the material, and having even received it into itself, it has assumed a foreign form through mixture with what is low,

[15] *Ibid.*, XLV, 7.
[16] *Ibid.*, I, 5.

like one who had entered mud or mire and who no longer displayed the beauty he once had, but should be seen covered with this mud and mire which he had acquired; and upon him has come ill-favor through the acquisition of a foreign substance, and it will be necessary for him, if he wishes to be beautiful again, to become what he was through washing and cleansing.

We should be right in saying that the soul becomes ill-favored through mingling and mixing with the body and through inclination toward it, and toward matter. And this is ugliness in a soul: not to be pure and unalloyed, as it is bad for gold to be mixed with soil, which if removed leaves the gold beautiful, purged of other substances, being left in its purity. In the same manner the soul purified of desires which it has because of the body with which it has come into too close association, being freed from other passions and purified of those which it has because of its embodiment, remaining in its purity, puts away all the baseness derived from its other nature.

There [17] should therefore be a reascent to the good which every soul desires. If any one has seen it he knows what I mean,—how beautiful it is. It must be desired as good, and one's desire must be for this. The attainment of it is for those who rise to higher things and who have turned toward it and have put off the things which we put on in our descent, just as for those who enter the innermost recesses of the temple there are lustrations and putting off of garments until one finally goes up naked, until one in the ascent passing beyond everything which is alien to God, by himself alone sees only that which is unalloyed, simple, pure, upon which all things depend, to which all look, and through which all are and live and think. For it is the cause of life and mind and existence. Then if

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[17] *Ibid.*, 1, 7.

one should see this, what love would he experience, what desire, wishing to be united with it, and with what joy would he be overwhelmed! It is possible for one who does not yet behold it to desire it as the good. But it is the lot of the one who sees it to be thrilled with beauty, to be filled with wonder and pleasure, painlessly overwhelmed, and to love with a true love, pierced with longing, and to scorn other loves and despise those things which were considered beautiful before. This is the sort of experience which comes to those who have met with the forms of gods or divinities; no longer can they endure in the same old way the beauties of other bodies.

What should we think if one should behold the very essence of beauty, in its own purity, not joined to flesh or body, not on earth, not in heaven, but where it is pure? For all these things are extraneous, and composite, not first principles, but derived from the First Principle. If then one should behold that which supplies all, and remaining by itself gives out but receives nothing into itself, continuing in the contemplation of such an object, and enjoying it, becoming like it, what further beauty could he want? For this, being the very essence of beauty and its first principle, makes its lovers beautiful, and makes them lovely. The greatest and supreme contest which presents itself to the soul is for this; in behalf of this is every labor done, that one may not be without a share in the highest contemplation. And he who catches sight of it is blessed, having beheld the blessed vision. Unhappy is he who gains it not. For he is not unfortunate who does not meet with beautiful colors or bodies, nor power nor authority, nor he who does not gain a kingdom, but he who misses this alone for the attainment of which one ought to let go a kingdom, and even authority over all the earth and sea and heaven, if abandoning these things and disdaining them and turning to that Other one might attain the vision of it.

CHAPTER XI

EARLY CHRISTIAN PHILOSOPHY

1. Christian Ethics

The spirit of early Christian ethics is typified in the following passage from the Sermon on the Mount:[1]

And seeing the multitudes, he went up into the mountain: and when he had sat down, his disciples came unto him: and he opened his mouth and taught them, saying,

Blessed are the poor in spirit: for theirs is the kingdom of heaven.

Blessed are they that mourn: for they shall be comforted.

Blessed are the meek: for they shall inherit the earth.

Blessed are they that hunger and thirst after righteousness: for they shall be filled.

Blessed are the merciful: for they shall obtain mercy.

Blessed are the pure in heart: for they shall see God.

Blessed are the peacemakers: for they shall be called sons of God.

Blessed are they that have been persecuted for righteousness' sake: for theirs is the kingdom of heaven.

Blessed are ye when men shall reproach you, and persecute you, and say all manner of evil against you falsely, for my sake. Rejoice, and be exceeding glad: for great is your reward in heaven: for so persecuted they the prophets that were before you.

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[1] *Matthew* v, 1–48; from American Standard Edition of the Revised Bible (Thomas Nelson and Sons, 1901); used by permission.

Ye are the salt of the earth: but if the salt have lost its savor, wherewith shall it be salted? it is thenceforth good for nothing, but to be cast out and trodden under foot of men. Ye are the light of the world. A city set on a hill cannot be hid. Neither do men light a lamp, and put it under the bushel, but on the stand; and it shineth unto all that are in the house. Even so let your light shine before men; that they may see your good works, and glorify your Father who is in heaven.

Think not that I came to destroy the law or the prophets: I came not to destroy, but to fulfill. For verily I say unto you, Till heaven and earth pass away, one jot or one tittle shall in no wise pass away from the law, till all things be accomplished. Whosoever therefore shall break one of these least commandments, and shall teach men so, shall be called least in the kingdom of heaven: but whosoever shall do and teach them, he shall be called great in the kingdom of heaven. For I say unto you, that except your righteousness shall exceed the righteousness of the scribes and Pharisees, ye shall in no wise enter into the kingdom of heaven.

Ye have heard that it was said to them of old time, Thou shalt not kill; and whosoever shall kill shall be in danger of the judgment: but I say unto you, that every one who is angry with his brother shall be in danger of the judgment; and whosoever shall say to his brother, Raca, shall be in danger of the council; and whosoever shall say, Thou fool, shall be in danger of the hell of fire. If therefore thou art offering thy gift at the altar, and there rememberest that thy brother hath aught against thee, leave there thy gift before the altar, and go thy way, first be reconciled to thy brother, and then come and offer thy gift. Agree with thine adversary quickly, while thou art with him in the way; lest haply the adversary deliver thee to the judge, and the judge deliver thee to the officer, and

thou be cast into prison. Verily I say unto thee, Thou shalt by no means come out thence, till thou have paid the last farthing.

Ye have heard that it was said, Thou shalt not commit adultery: but I say unto you, that every one that looketh on a woman to lust after her hath committed adultery with her already in his heart. And if thy right eye causeth thee to stumble, pluck it out, and cast it from thee: for it is profitable for thee that one of thy members should perish, and not thy whole body be cast into hell. And if thy right hand causeth thee to stumble, cut it off, and cast it from thee: for it is profitable for thee that one of thy members should perish, and not thy whole body go into hell. It was said also, Whosoever shall put away his wife, let him give her a writing of divorcement: but I say unto you, that every one that putteth away his wife, saving for the cause of fornication, maketh her an adulteress: and whosoever shall marry her when she is put away committeth adultery.

Again, ye have heard that it was said to them of old time, Thou shalt not forswear thyself, but shalt perform unto the Lord thine oaths: but I say unto you, Swear not at all; neither by the heaven, for it is the throne of God; nor by the earth, for it is the footstool of his feet; nor by Jerusalem, for it is the city of the Great King. Neither shalt thou swear by thy head, for thou canst not make one hair white or black. But let your speech be, Yea, yea; Nay, nay; and whatsoever is more than these is of the evil one.

Ye have heard that it was said, An eye for an eye, and a tooth for a tooth: but I say unto you, Resist not him that is evil: but whosoever smiteth thee on thy right cheek, turn to him the other also. And if any man would go to law with thee, and take away thy coat, let him have thy cloak also. And whosoever shall compel thee to go one

mile, go with him two. Give to him that asketh thee, and from him that would borrow of thee turn not thou away.

Ye have heard that it was said, Thou shalt love thy neighbor, and hate thine enemy: but I say unto you, Love your enemies, and pray for them that persecute you; that ye may be sons of your Father who is in heaven: for he maketh his sun to rise on the evil and the good, and sendeth rain on the just and the unjust. For if ye love them that love you, what reward have ye? do not even the publicans the same? And if ye salute your brethren only, what do ye more than others? do not even the Gentiles the same? Ye therefore shall be perfect, as your heavenly Father is perfect.

2. The Crucifixion and Resurrection

What is perhaps the earliest of the gospel accounts of these important aspects of Christian doctrine is contained in the following section of the Gospel of Mark:[2]

And straightway in the morning the chief priests with the elders and scribes, and the whole council, held a consultation, and bound Jesus, and carried him away, and delivered him up to Pilate. And Pilate asked him, Art thou the king of the Jews? And he answering saith unto him, Thou sayest. And the chief priests accused him of many things. And Pilate again asked him, saying, Answerest Thou nothing? behold how many things they accuse thee of. But Jesus no more answered anything; insomuch that Pilate marvelled. Now at the feast he used to release unto them one prisoner, whom they asked of him. And there was one called Barabbas, lying bound with them that had made insurrection, men who in the insurrection had committed murder. And the multitude went up and began to ask him to do as he was wont to do unto them. And Pilate answered them, saying, Will ye that I release

[2] *Mark* xv, 1–xvi, 8, American Standard Edition, cited above.

unto you the King of the Jews? For he perceived that for envy the chief priests had delivered him up. But the chief priests stirred up the multitude, that he should rather release Barabbas unto them. And Pilate again answered and said unto them, What then shall I do unto him whom ye call the King of the Jews? And they cried out again, Crucify him. And Pilate said unto them, Why, what evil hath he done? But they cried out exceedingly, Crucify him. And Pilate, wishing to content the multitude, released unto them Barabbas, and delivered Jesus, when he had scourged him, to be crucified.

And the soldiers led him away within the court, which is the Praetorium; and they called together the whole band. And they clothed him with purple, and platting a crown of thorns, they put it on him; and they began to salute him, Hail, King of the Jews! And they smote his head with a reed, and spat upon him, and bowing their knees worshiped him. And when they had mocked him, they took off from him the purple, and put on him his garments. And they led him out to crucify him.

And they compel one passing by, Simon of Cyrene, coming from the country, the father of Alexander and Rufus, to go with them, that he might bear his cross.

And they bring him unto the place Golgotha, which is, being interpreted, The place of a skull. And they offered him wine mingled with myrrh: but he received it not. And they crucify him, and part his garments among them, casting lots upon them, what each would take. And it was the third hour, and they crucified him. And the superscription of his accusation was written over, THE KING OF THE JEWS. And with him they crucify two robbers; one on his right hand, and one on his left. And they that passed by railed on him, wagging their heads, and saying, Ha! thou that destroyest the temple, and buildest it in three days, save thyself, and come down from the cross.

In like manner also the chief priests mocking him among themselves with the scribes said, He saved others; himself he cannot save. Let the Christ, the King of Israel, now come down from the cross, that we may see and believe. And they that were crucified with him reproached him.

And when the sixth hour was come, there was darkness over the whole land until the ninth hour. And at the ninth hour Jesus cried with a loud voice, Eloi, Eloi, lama sabachthani? which is, being interpreted, My God, my God, why hast thou forsaken me? And some of them that stood by, when they heard it, said, Behold he calleth Elijah. And one ran, and filling a sponge full of vinegar, put it on a reed, and gave him to drink, saying, Let be; let us see whether Elijah cometh to take him down. And Jesus uttered a loud voice, and gave up the ghost. And the veil of the temple was rent in two, from the top to the bottom. And when the centurion, who stood by over against him, saw that he so gave up the ghost, he said, Truly this man was the son of God. And there were also women beholding from afar: among whom were both Mary Magdalene, and Mary the mother of James the less and of Joses, and Salome; who, when he was in Galilee, followed him, and ministered unto him; and many other women that came up with him unto Jerusalem.

And when even was now come, because it was the Preparation, that is, the day before the Sabbath, there came Joseph of Arimathaea, a councilor of honorable estate, who also himself was looking for the kingdom of God; and he boldly went unto Pilate, and asked for the body of Jesus. And Pilate marveled if he were already dead: and calling unto him the centurion, he asked him whether he had been any while dead. And when he learned it of the centurion, he granted the corpse to Joseph. And he bought a linen cloth, and taking him down, wound him in the linen cloth, and laid him in a tomb which had been hewn

out of a rock; and he rolled a stone against the door of the tomb. And Mary Magdalene and Mary the mother of Joses beheld where he was laid.

And when the Sabbath was past Mary Magdalene, and Mary the mother of James, and Salome, bought spices, that they might come and anoint him. And very early on the first day of the week, they come to the tomb when the sun was risen. And they were saying among themselves, Who shall roll us away the stone from the door of the tomb? and looking up, they see that the stone is rolled back: for it was exceeding great. And entering into the tomb, they saw a young man sitting on the right side, arrayed in a white robe; and they were amazed. And he said unto them, Be not amazed: ye seek Jesus, the Nazarene, who hath been crucified: he is risen; he is not here: behold, the place where they laid him! But go, tell his disciples and Peter, He goeth before you into Galilee: there shall ye see him, as he said unto you. And they went out, and fled from the tomb; for trembling and astonishment had come upon them: and they said nothing to any one; for they were afraid.

3. The Logos Doctrine

The interpretation of Christian doctrine in terms of Greek (Alexandrian) philosophy is reflected in the opening verses of the Gospel of John:[3]

In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made through him; and without him was not anything made that hath been made. In him was life; and the life was the light of men. And the light shineth in the darkness; and the darkness apprehended it not. There came a man, sent from God, whose name was John. The same came for witness, that he

[3] *John* i, 1–14; American Standard Version, cited above.

might bear witness of the light, that all might believe through him. He was not the light, but came that he might bear witness of the light. There was the true light, even the light which lighteth every man, coming into the world. He was in the world, and the world was made through him, and the world knew him not. He came unto his own, and they that were his own received him not. But as many as received him, to them gave he the right to become children of God, even to them that believe on his name: who were born not of blood, nor of the will of the flesh, nor of the will of man, but of God. And the Word became flesh, and dwelt among us (and we beheld his glory, glory as of the only begotten from the Father), full of grace and truth.

4. Paul's Theology

Paul's interpretation of the meaning of the death and resurrection is summarized in the following chapter from his first letter to the Corinthians:[4]

Now I make known unto you, brethren, the gospel which I preached unto you, which also ye received, wherein also ye stand, by which also ye are saved, if ye hold fast the word which I preached unto you, except ye believed in vain. For I delivered unto you first of all that which also I received: that Christ died for our sins according to the scriptures; and that he was buried; and that he hath been raised on the third day according to the scriptures; and that he appeared to Cephas; then to the twelve; then he appeared to above five hundred brethren at once, of whom the greater part remain until now, but some are fallen asleep; then he appeared to James; then to all the apostles; and last of all, as to the child untimely born, he appeared to me also. For I am the least of the apostles, that am not meet to be called an apostle, because I persecuted the

[4] I *Corinthians* xv; American Standard Version, cited above.

church of God. But by the grace of God I am what I am: and his grace which was bestowed upon me was not found vain; but I labored more abundantly than they all: yet not I, but the grace of God which was with me. Whether then it be I or they, so we preach, and so ye believed.

Now if Christ is preached that he hath been raised from the dead, how say some among you that there is no resurrection of the dead? But if there is no resurrection of the dead, neither hath Christ been raised: and if Christ hath not been raised, then is our preaching vain, your faith also is vain. Yea, and we are found false witnesses of God; because we witnessed of God that he raised up Christ: whom he raised not up, if so be that the dead are not raised. For if the dead are not raised, neither hath Christ been raised: and if Christ hath not been raised, your faith is vain; ye are yet in your sins. Then they also that are fallen asleep in Christ have perished. If we have only hoped in Christ in this life, we are of all men most pitiable.

But now hath Christ been raised from the dead, the first-fruits of them that are asleep. For since by man came death, by man came also the resurrection of the dead. For as in Adam all die, so also in Christ shall all be made alive. But each in his own order: Christ the first-fruits; then they that are Christ's, at his coming. Then cometh the end, when he shall deliver up the kingdom to God, even the Father; when he shall have abolished all rule and all authority and power. For he must reign, till he hath put all his enemies under his feet. The last enemy that shall be abolished is death. For, He put all things in subjection under his feet. But when he saith, All things are put in subjection, it is evident that he is excepted who did subject all things unto him. And when all things have been subjected unto him, then shall the Son also himself be subjected to him that did subject all things unto him, that God may be all in all.

Else what shall they do that are baptized for the dead? If the dead are not raised at all, why then are they baptized for them? why do we also stand in jeopardy every hour? I protest by that glorying in you, brethren, which I have in Christ Jesus our Lord, I die daily. If after the manner of men I fought with beasts at Ephesus, what doth it profit me? If the dead are not raised, let us eat and drink, for to-morrow we die. Be not deceived: Evil companionships corrupt good morals. Awake to soberness righteously, and sin not; for some have no knowledge of God: I speak this to move you to shame.

But some one will say, How are the dead raised? and with what manner of body do they come? Thou foolish one, that which thou thyself sowest is not quickened except it die: and that which thou sowest, thou sowest not the body that shall be, but a bare grain, it may chance of wheat, or some other kind; but God giveth it a body even as it pleased him, and to each seed a body of its own. All flesh is not the same flesh: but there is one flesh of men, and another flesh of beasts, and another flesh of birds, and another of fishes. There are also celestial bodies, and bodies terrestrial: but the glory of the celestial is one and the glory of the terrestial is another. There is one glory of the sun, and another glory of the moon, and another glory of the stars; for one star differeth from another star in glory. So also is the resurrection of the dead. It is sown in corruption; it is raised in incorruption: it is sown in dishonor; it is raised in glory: it is sown in weakness; it is raised in power: it is sown a natural body; it is raised a spiritual body. If there is a natural body, there is also a spiritual body. So also it is written, The first man Adam became a living soul. The last Adam became a life-giving spirit. Howbeit that is not first which is spiritual, but that which is natural; then that which is spiritual. The first man is of the earth, earthy: the second man is of

heaven. As is the earthy, such are they also that are earthy: and as is the heavenly, such are they also that are heavenly. And as we have borne the image of the earthy, we shall also bear the image of the heavenly.

Now this I say, brethren, that flesh and blood cannot inherit the kingdom of God; neither doth corruption inherit incorruption. Behold, I tell you a mystery: We all shall not sleep, but we shall all be changed, in a moment, in the twinkling of an eye, at the last trump: for the trumpet shall sound, and the dead shall be raised incorruptible, and we shall be changed. For this corruptible must put on incorruption, and this mortal must put on immortality. But when this corruptible shall have put on incorruption, and this mortal shall have put on immortality, then shall come to pass the saying that is written, Death is swallowed up in victory. O death, where is thy victory? O death, where is thy sting? The sting of death is sin; and the power of sin is the law: but thanks be to God, who giveth us the victory through our Lord Jesus Christ. Wherefore, my beloved brethren, be ye steadfast, unmovable, always abounding in the work of the Lord, forasmuch as ye know that your labor is not vain in the Lord.

CHAPTER XII

MEDIEVAL PHILOSOPHY

1. Augustine's Doctrine of Evil

The following passages are from Augustine's *Enchiridion* or "Handbook":[1]

Chap. 9. What we are to believe. In regard to nature it is not necessary for the Christian to know more than that the goodness of the Creator is the cause of all things.

When, then, the question is asked what we are to believe in regard to religion, it is not necessary to probe into the nature of things, as was done by those whom the Greeks call *physici;* nor need we be in alarm lest the Christian should be ignorant of the force and number of the elements, —the motion, and order, and eclipses of the heavenly bodies; the form of the heavens; the species and the natures of animals, plants, stones, fountains, rivers, mountains; about chronology and distances; the signs of coming storms; and a thousand other things which those philosophers either have found out, or think they have found out.

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[1] Augustine, *Enchiridon,* Chs. 9–13; translation of J. E. Shaw, in the Select Library of Nicene and Post Nicene Fathers, copyright, 1917, by Charles Scribner's Sons; reprinted by permission of the publishers.

Aurelius Augustinus (354–430), born in Thagaste (Egypt), educated there and at Carthage, became a teacher at Rome. He was a follower of Manichaeism, Skepticism, Neo-Platonism, and finally Christianity; became bishop of Hippo, and an important interpreter of the doctrines of the Church. The *Enchiridion,* or "Handbook," was written about 421.

For even these men themselves, endowed though they are with so much genius, burning with zeal, abounding in leisure, tracking some things by the aid of human conjecture, searching into others with the aids of history and experience, have not found out all things; and even their boasted discoveries are oftener mere guesses than certain knowledge. It is enough for the Christian to believe that the only cause of all created things, whether heavenly or earthly, whether visible or invisible, is the goodness of the Creator, the one true God; and that nothing exists but Himself that does not derive its existence from Him; and that He is the Trinity—to-wit, the Father, and the Son begotten of the Father, and the Holy Spirit proceeding from the same Father, but one and the same Spirit of Father and Son.

Chap. 10. The supremely good Creator made all things good.

By the Trinity, thus supremely and equally and unchangeably good, all things were created; and these are not supremely and equally and unchangeably good, but yet they are good, even taken separately. Taken as a whole, however, they are very good, because their *ensemble* constitutes the universe in all its wonderful order and beauty.

Chap. 11. What is called evil in the universe is but the absence of good.

And in the universe, even that which is called evil, when it is regulated and put in its own place, only enhances our admiration of the good; for we enjoy and value the good more when we compare it with the evil. For the Almighty God, who, as even the heathen acknowledge, has supreme power over all things, being Himself supremely good, would never permit the existence of anything evil

among his works, if He were not so omnipotent and good that he can bring good even out of evil. For what is that which we call evil but the absence of good? In the bodies of animals, disease and wounds mean nothing but the absence of health; for when a cure is effected, that does not mean that the evils which were present—namely, the diseases and wounds—go away from the body and dwell elsewhere: they altogether cease to exist; for the wound or disease is not a substance, but a defect in the fleshly substance,—the flesh itself being a substance, and therefore something good, of which those evils—that is,—privations of the good which we call health—are accidents. Just in the same way, what are called vices in the soul are nothing but privations of natural good. And when they are cured, they are not transferred elsewhere: when they cease to exist in the healthy soul, they cannot exist anywhere else.

Chap. 12. All beings were made good, but not being made perfectly good, are liable to corruption.

All things that exist, therefore, seeing that the Creator of them all is supremely good, are themselves good. But because they are not, like their Creator, supremely and unchangeably good, their good may be diminished and increased. But for good to be diminished is an evil, although, however much it may be diminished, it is necessary, if the being is to continue, that some good should remain to constitute the being. For however small or of whatever kind the being may be, the good which makes it a being cannot be destroyed without destroying the being itself. An uncorrupted nature is justly held in esteem. But if, still further, it be incorruptible, it is undoubtedly considered of still higher value. When it is corrupted, however, its corruption is an evil, because it is deprived of some sort of good. For if it be deprived of no good, it receives no

injury; but it does receive injury, therefore it is deprived of good. Therefore, so long as a being is in process of corruption, there is in it some good of which it is being deprived; and if a part of the being should remain which cannot be corrupted, this will certainly be an incorruptible being, and accordingly the process of corruption will result in the manifestation of this great good. But if it do not cease to be corrupted, neither can it cease to possess good of which corruption may deprive it. But if it should be thoroughly and completely consumed by corruption, there will then be no good left, because there will be no being. Wherefore corruption can consume the good only by consuming the being. Every being, therefore, is a good; a great good, if it can not be corrupted; a little good, if it can: but in any case, only the foolish or ignorant will deny that it is a good. And if it be wholly consumed by corruption, then the corruption itself must cease to exist, as there is no being left in which it can dwell.

Chap. 13. There can be no evil where there is no good; and an evil man is an evil good.

Accordingly there is nothing of what we call evil, if there be nothing good. But a good which is wholly without evil is a perfect good. A good, on the other hand, which contains evil is a faulty or imperfect good; and there can be no evil where there is no good. From all this we arrive at the curious result: that since every being, so far as it is a being, is good, when we say that a faulty being is an evil being, we just seem to say that what is good is evil, and that nothing but what is good can be evil, seeing that every being is good, and that no evil can exist except in a being. Nothing, then, can be evil except something which is good. And although this, when stated, seems to be a contradiction, yet the strictness of reasoning leaves us no

escape from the conclusion. We must, however, beware of incurring the prophetic condemnation: "Woe unto them that call evil good, and good evil: that put darkness for light, and light for darkness: that put bitter for sweet, and sweet for bitter." And yet our Lord says: "An evil man out of the evil treasure of his heart bringeth forth that which is evil." Now, what is an evil man but an evil being? for a man is a being. Now, if a man is a good thing because he is a being, what is an evil man but an evil good? Yet, when we accurately distinguish these two things, we find that it is not because he is a man that he is an evil, or because he is wicked that he is good; but that he is a good because he is a man, and an evil because he is wicked. Whoever, then, says, "To be a man is an evil," or "To be wicked is a good," falls under the prophetic denunciation: "Woe unto them that call evil good, and good evil!" For he condemns the work of God, which is the man, and praises the defect of man, which is the wickedness. Therefore every being, even if it be a defective one, in so far as it is a being is good, and in so far as it is defective is an evil.

2. The Interrelation of Faith and Understanding, and the Ontological Proof

Anselm here gives a statement, typical of the medieval mode of presentation, of these important doctrines, representing the view *credo ut intelligam*, and his classic proof of the existence of God:[2]

Be it mine to look up to thy light, even from afar, even from the depths. Teach me to seek thee, and reveal thy-

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[2] Anselm, *Proslogium*, translation of S. N. Deane (1903); Ch. i, Ch. iv; reprinted by permission of the Open Court Publishing Co.

Anselm (1033–1109), born at Aosta, Italy, became influential in the cloister at Bec, Normandy, was made Archbishop of Canterbury, in 1093. He was a great teacher, and one of the leading thinkers of the Scholastic period. The *Proslogium* is one of his most important works.

self to me, when I seek thee, for I cannot seek thee, except thou teach me, nor find thee, except thou reveal thyself. Let me seek thee in longing, let me long for thee in seeking; let me find thee in love, and love thee in finding. Lord, I acknowledge and I thank thee, that thou hast created me in this thine image, in order that I may be mindful of thee, may conceive of thee, and love thee; but that image has been so consumed and wasted away by vices, and obscured by the smoke of wrongdoing, that it cannot achieve that for which it was made, except thou renew it, and create it anew. I do not endeavor, O Lord, to penetrate thy sublimity, for in no wise do I compare my understanding with that; but I long to understand in some degree thy truth, which my heart believes and loves. For I do not seek to understand that I may believe, but I believe in order to understand. For this also I believe,—that unless I believed, I should not understand.

Chapter II

Truly there is a God, although the fool hath said in his heart, There is no God.

And so, Lord, do thou, who dost give understanding to faith, give me, so far as thou knowest it to be profitable, to understand that thou art as we believe; and that thou art that which we believe. And, indeed, we believe that thou art a being than which nothing greater can be conceived. Or is there no such nature, since the fool hath said in his heart, there is no God? (Psalms xiv. 1.) But, at any rate, this very fool, when he hears of this being of which I speak—a being than which nothing greater can be conceived—understands what he hears, and what he understands is in his understanding; although he does not understand it to exist.

For, it is one thing for an object to be in the understand-

ing, and another to understand that the object exists. When a painter first conceives of what he will afterwards perform, he has it in his understanding, but he does not yet understand it to be, because he has not yet performed it. But after he has made the painting, he both has it in his understanding, and he understands that it exists, because he has made it.

Hence, even the fool is convinced that something exists in the understanding, at least, than which nothing greater can be conceived. For, when he hears of this, he understands it. And whatever is understood, exists in the understanding. And assuredly that, than which nothing greater can be conceived, cannot exist in the understanding alone. For, suppose it exists in the understanding alone: then it can be conceived to exist in reality; which is greater.

Therefore, if that, than which nothing greater can be conceived, exists in the understanding alone, the very being, than which nothing greater can be conceived, is one, than which a greater can be conceived. But obviously this is impossible. Hence, there is no doubt that there exists a being, than which nothing greater can be conceived, and it exists both in the understanding and in reality.

Chapter III

God cannot be conceived not to exist.—God is that, than which nothing greater can be conceived.—That which can be conceived not to exist is not God.

And it assuredly exists so truly, that it cannot be conceived not to exist. For, it is possible to conceive of a being which can not be conceived not to exist; and this is greater than one which can be conceived not to exist. Hence, if that, than which nothing greater can be conceived, can be conceived not to exist, it is not that than which nothing greater can be conceived. But this is an

irreconcilable contradiction. There is, then, so truly a being than which nothing greater can be conceived to exist, that it cannot even be conceived not to exist; and this being thou art, O Lord, our God.

So truly, therefore, dost thou exist, O Lord, my God, that thou canst not be conceived not to exist; and rightly. For, if a mind could conceive of a being better than thee, the creature would rise above the Creator; and this is most absurd. And, indeed, whatever else there is, except thee alone, can be conceived not to exist. To thee alone, therefore, it belongs to exist more truly than all other beings, and hence in a higher degree than all others. For, whatever else exists does not exist so truly, and hence in a less degree it belongs to it to exist. Why, then, has the fool said in his heart, there is no God (Psalms xiv. 1), since it is so evident, to a rational mind, that thou dost exist in the highest degree of all? Why, except that he is dull and a fool?

Chapter IV

How the fool has said in his heart what cannot be conceived.—A thing may be conceived in two ways: (1) when the word signifying it is conceived; (2) when the thing itself is understood. As far as the word goes, God can be conceived not to exist; in reality he cannot.

But how has the fool said in his heart what he could not conceive; or how is it that he could not conceive what he said in his heart? since it is the same to say in the heart and to conceive.

But, if really, nay, since really, he both conceived, because he said in his heart; and did not say in his heart, because he could not conceive; there is more than one way in which a thing is said in the heart or conceived. For, in one sense, an object is conceived, when the word signifying it is conceived; and in another, when the very entity, which the object is, is understood.

In the former sense, then, God can be conceived not to exist; but in the latter, not at all. For no one who understands what fire and water are can conceive fire to be water, in accordance with the nature of the facts themselves, although this is possible according to the words. So, then, no one who understands what God is can conceive that God does not exist; although he says these words in his heart, either without any, or with some foreign, signification. For, God is that than which a greater cannot be conceived. And he who thoroughly understands this, assuredly understands that this being so truly exists, that not even in concept can it be non-existent. Therefore, he who understands that God so exists, cannot conceive that he does not exist.

I thank thee, gracious Lord, I thank thee; because what I formerly believed by thy bounty, I now so understand by thine illumination, that if I were unwilling to believe that thou dost exist, I should not be able not to understand this to be true.

3. Realism

The following passage gives a statement of modified realism from the standpoint of the Church in the thirteenth century A.D.: [3]

Whether the intelligible species are derived by the soul from certain separate forms?

Objection 1. It seems that the intelligible species are derived by the soul from some separate forms. For what-

[3] Saint Thomas Aquinas, *Summa Theologica,* translation of the Dominican Fathers (1912); Part I, Third Number, Question lxxxiv, Article 4; reprinted by permission of Benziger Brothers, New York, and of Burns, Oates and Washbourne, London.

Thomas of Aquino (1227–1274), an Italian by birth, studied at Monte Cassino, Naples, Cologne, and Paris. He taught at Cologne, Paris, Rome and Bologna, was a man of great intellectual industry and learning, was especially famous for his combination of Christian and Aristotelian thought. His greatest work is his *Summa Theologica.*

ever is such by participation is caused by what is such essentially; for instance, that which is on fire is reduced to fire as the cause thereof. But the intellectual soul forasmuch as it is actually understanding, participates in the thing understood: for, in a way, the intellect in act is the thing understood in act. Therefore what in itself and in its essence is understood in act, is the cause that the intellectual soul actually understands. Now that which in its essence is actually understood is a form existing without matter. Therefore the intelligible species, by which the soul understands, are caused by some separate forms.

Objection 2. Further, the intelligible is to the intellect, as the sensible is to the sense. But the sensible species which are in the senses, and by which we feel, are caused by the sensible object which exists actually outside the soul. Therefore the intelligible species by which our intellect understands, are caused by some things actually intelligible, existing outside the soul. But these can be nothing else than forms separate from matter. Therefore the intelligible forms of our intellect are derived from some separate substances.

Objection 3. Further, whatever is in potentiality is reduced to act by something actual. If, therefore, our intellect, previously in potentiality, actually understands, this must needs be caused by some intellect which is always in act. But this is a separate intellect. Therefore the intelligible species, by which we actually understand, are caused by some separate substances.

On the contrary, If this were true we should not need the senses in order to understand. And this is proved to be false especially from the fact that if a man be wanting in a sense, he cannot have any knowledge of the sensibles corresponding to that sense.

I answer that, Some have held that the intelligible species of our intellect are derived from certain separate forms

or substances. And this in two ways. For Plato, as we have said, held that the forms of sensible things subsist by themselves without matter; for instance, the form of a man which he called *per se* man, and the form or idea of a horse which he called *per se* horse, and so forth. He said therefore that these forms are participated both by our soul and by corporeal matter; by our soul, to the effect of knowledge thereof, and by corporeal matter to the effect of existence: so that, just as corporeal matter by participating the idea of a stone, becomes an individual stone, so our intellect, by participating the idea of a stone, is made to understand a stone. Now participation of an idea takes place by some image of the idea in the participator, just as a model is participated by a copy. So just as he held that the sensible forms, which are in corporeal matter, are derived from the ideas as certain images thereof: so he held that the intelligible species of our intellect are images of the ideas, derived therefrom. And for this reason, as we have said above, he referred sciences and definitions to those ideas.

But since it is contrary to the nature of sensible things that their forms should subsist without matter, as Aristotle proves in many ways, Avicenna setting this opinion aside, held that the intelligible species of all sensible things, instead of subsisting in themselves without matter, pre-exist immaterially in the separate intellects: from the first of which, said he, such species are derived by a second, and so on to the last separate intellect which he called the *active intelligence*, from which, according to him, intelligible species flow into our souls, and sensible species into corporeal matter. And so Avicenna agrees with Plato in this, that the intelligible species of our intellect are derived from certain separate forms; but these Plato held to subsist of themselves, while Avicenna placed them in the *active intelligence*. They differ, too, in this respect, that Avi-

cenna held that the intelligible species do not remain in our intellect after it has ceased actually to understand, and that it needs to turn (to the active intellect) in order to receive them anew. Consequently he does not hold that the soul has innate knowledge, as Plato, who held that the participated ideas remain immovably in the soul.

But in this opinion no sufficient reason can be assigned for the soul being united to the body. For it cannot be said that the intellectual soul is united to the body for the sake of the body: for neither is form for the sake of matter, nor is the mover for the sake of the moved, but rather the reverse. Especially does the body seem necessary to the intellectual soul, for the latter's proper operation which is to understand: since as to its being the soul does not depend on the body. But if the soul by its very nature had an inborn aptitude for receiving intelligible species through the influene of only certain separate principles, and were not to receive them from the senses, it would not need the body in order to understand: wherefore to no purpose would it be united to the body.

But if it be said that our soul needs the senses in order to understand, through being in some way excited by them to the consideration of those things the intelligible species of which it receives from the separate principles: even this seems an insufficient explanation. For this excitation does not seem necessary to the soul, except in as far as it is overcome by sluggishness, as the Platonists expressed it, and by forgetfulness, through its union with the body. Consequently the reason of the union of the soul with the body still remains to be sought.

And if it be said with Avicenna, that the senses are necessary to the soul, because by them it is roused to turn to the *active intelligence* from which it receives the species: neither is this a sufficient explanation. Because if it is natural for the soul to understand through species derived

from the *active intelligence,* it follows that at times the soul of an individual wanting in one of the senses can turn to the active intelligence, either from the inclination of its very nature, or through being aroused by another sense, to the effect of receiving the intelligible species of which the corresponding sensible species are wanting. And thus a man born blind could have knowledge of colors; which is clearly untrue. We must therefore conclude that the intelligible species, by which our soul understands, are not derived from separate forms.

Reply Objection 1. The intelligible species which fall to the share of our intellect are reduced, as to their first cause, to a first principle which is by its essence intelligible—namely, God. But they proceed from that principle by means of the forms of sensible and material things, from which we gather knowledge, as Dionysius says.

Reply Objection 2. Material things, as to the being which they have outside the soul, may be actually sensible, but not actually intelligible. Wherefore there is no comparison between sense and intellect.

Reply Objection 3. Our passive intellect is reduced from potentiality to act by some being in act, that is, by the active intellect, which is a power of the soul as we have said; and not by a separate intelligence, as a proximate cause, although perchance as remote cause.

PART II

THE CHIEF PROBLEMS AND STANDPOINTS OF MODERN PHILOSOPHY

CHAPTER XIII

MODERN PHILOSOPHY: ITS SPIRIT, ITS CHIEF PROBLEMS AND STANDPOINTS

In the nature of the case it is impossible to illustrate these except through the text of the remaining part of the book. The following bibliography is given to indicate some of the most useful discussions of the whole period in sum:

THILLY, F., *History of Philosophy,* pages 250-254.

WEBB, C. C. J., *History of Philosophy.*

WINDELBAND, W., *History of Philosophy* (translated by Thilly), 2nd edition revised, pages 348-354, 378-379, 437-440, 529-531, 568-569, 623-627.

ROYCE, J., *The Spirit of Modern Philosophy,* Lecture II, pages 27-41 (especially).

HÖFFDING, H., *History of Modern Philosophy,* Vol. I, pages 3-9, 161-163, 209-211.

CHAPTER XIV

THE PROBLEM OF REALITY

The following bibliography will suggest some of the best known elementary discussions of the problem in general, the specific answers of different types being illustrated in the following chapters:

PERRY, R. B., *The Approach to Philosophy,* Chapter VI.
JAMES, W., *Some Problems of Philosophy,* Chapters II, III.
HIBBEN, J. G., *The Problems of Philosophy,* Chapter III.
RUSSELL, B., *The Problems of Philosophy,* Chapters I-IV.
HÖFFDING, H., *The Problems of Philosophy,* Chapter III.
PAULSEN, F., *Introduction to Philosophy,* pages 53-335.
WINDELBAND, W., *History of Philosophy,* pages 399-425.

CHAPTER XV

DUALISM

1. Descartes on the Self as Mind [1]

But what, then, am I? A thinking thing, it has been said. But what is a thinking thing? It is a thing that doubts, understands, conceives, affirms, denies, wills, refuses, that imagines also, and perceives. Assuredly it is not little, if all these properties belong to my nature. But why should they not belong to it? Am I not that very being who now doubts of almost everything; who, for all that, understands and conceives certain things; who affirms one alone as true, and denies the others; who desires to know more of them, and does not wish to be deceived; who imagines many things, sometimes even despite his will; and is likewise percipient of many, as if through the medium of the senses. Is there nothing of all this as true as that I am, even although I should be always dreaming, and although he who gave me being employed all his ingenuity to deceive me? Is there also any one of these attributes that can be properly distinguished from my thought, or that can be said to be separate from myself? For it is of itself so evident that it is I who doubt, I who understand, and I who desire, that it is here unnecessary

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[1] Descartes, *Meditations*, II, translated by J. Veitch (1905); reprinted by permission of the Open Court Publishing Co.

Réné Descartes (1596–1650), French soldier, scientist, mathematician and philosopher, lived in Paris and the Netherlands. He is noted as the founder of analytic geometry, as the expounder of the theory of animal automatism, and for his philosophic doubt. The *Meditations* were published in 1641 at Paris.

to add anything by way of rendering it more clear. And I am as certainly the same being who imagines; for, although it may be (as I before supposed) that nothing I imagine is true, still the power of imagination does not cease really to exist in me and to form part of my thought. In fine, I am the same being who perceives, that is, who apprehends certain objects as by the organs of sense, since in truth, I see light, hear a noise, and feel heat. But it will be said that these presentations are false, and that I am dreaming. Let it be so. At all events it is certain that I seem to see light, hear a noise, and feel heat; this cannot be false, and this is what in me is properly called perceiving (*sentire*), which is nothing else than thinking. From this I begin to know what I am with somewhat greater clearness and distinctness than heretofore.

2. Descartes on the Existence of Material Things

Having determined to doubt away everything possible, and to accept nothing for which the evidence is not clear and distinct, Descartes finds the existence of the material world by no means self-evident: [2]

I find in myself diverse faculties of thinking that have each their special mode: for example, I find I possess the faculties of imagining and perceiving, without which I can indeed clearly and distinctly conceive myself as entire, but I cannot reciprocally conceive them without conceiving myself, that is to say, without an intelligent substance in which they reside, for in the notion we have of them, or to use the terms of the schools in their formal concept, they comprise some sort of intellection; whence I perceive that they are distinct from myself as modes are from things. I remark likewise certain other faculties, as the power of changing place, of assuming diverse figures, and the like, that cannot be conceived and cannot therefore

[2] *Ibid.*, VI.

exist, any more than the preceding, apart from a substance in which they inhere. It is very evident, however, that these faculties, if they really exist, must belong to some corporeal or extended substance, since in their clear and distinct concept there is contained some sort of extension, but no intellection at all. Farther, I cannot doubt but that there is in me a certain passive faculty of perception, that is, of receiving and taking knowledge of the ideas of sensible things; but this would be useless to me if there did not also exist in me, or in some other thing, another active faculty capable of forming and producing those ideas. But this active faculty cannot be in me in as far as I am but a thinking thing, seeing that it does not presuppose thought, and also that those ideas are frequently produced in my mind without my contributing to it in any way, and even frequently contrary to my will. This faculty must therefore exist in some substance different from me, in which all the objective reality of the ideas that are produced by this faculty, is contained formally or eminently, as I before remarked; and this substance is either a body, that is to say, a corporeal nature in which is contained formally and in effect all that is objectively and by representation in those ideas; or it is God Himself, or some other creature, of a rank superior to body, in which the same is contained eminently. But as God is no deceiver, it is manifest that He does not of Himself and immediately communicate those ideas to me, nor even by the intervention of any creature in which their objective reality is not formally, but only eminently, contained. For as he has given me no faculty whereby I can discover this to be the case, but, on the contrary, a very strong inclination to believe that those ideas arise from corporeal objects, I do not see how he could be vindicated from the charge of deceit, if in truth they proceeded from any other source, or were produced by other causes than corporeal things:

and accordingly it must be concluded, that corporeal objects exist. Nevertheless they are not perhaps exactly such as we perceive by the senses, for their comprehension by the senses is, in many instances, very obscure and confused; but it is at least necessary to admit that all which I clearly and distinctly conceive as in them, that is, generally speaking, all that is comprehended in the object of speculative geometry, really exists external to me.

3. Descartes on the Interaction of Mind and Body

Descartes describes the interaction of soul and body as follows:[3]

Let us understand then that the soul has its principal seat in the small gland which is in the center of the brain, whence it radiates its influence into all the rest of the body through the intermediation of the animal spirits, nerves, and even the blood, which participating in the modifications of the spirits is able to carry them through the arteries to all the members. And recall what has been said about the mechanism of our body, namely that the small nerve filaments are so distributed through all its parts, that on occasion of the various movements which are excited in them by sensible objects they open in various ways the pores of the brain and cause the animal spirits which are contained in its cavities to enter in various ways into the muscles; and by this means they are able to move the members in all the various ways in which they are capable of being moved. All the other causes also which can affect the spirits in various ways serve to conduct them into various muscles. Add to this that the little gland which is the principal seat of the soul is so suspended among the cavities which contain these spirits, that it can

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[3] Descartes, *Les Passions de l'Ame*, XXXIV; translated from the text of Adam and Tannery (Paris, 1909); *Works*, Vol. XI, p. 354.

be moved by them in as many different ways as there are sensible differences in the objects. But it can also be moved in various ways by the soul, which is of such nature that it receives as many different impressions from it, that is, that it has as many different perceptions, as there are different movements in this gland. *Vice versa* the mechanism of the body is so constructed that this gland, from the mere fact that it is variously moved by the soul, or by whatever other cause this can occur, impels the surrounding spirits toward the pores of the brain, which conduct them by the nerves to the muscles, and by these means causes them to move the members.

4. Locke on the Ideas of Solidity and Spirit

The genesis of these ideas, which in Locke's judgment are the most essential, is described by him thus:[4]

IDEA OF SOLIDITY

1. *We receive this Idea from Touch.*—The idea of solidity we receive by our touch; and it arises from the resistance which we find in body to the entrance of any other body into the place it possesses, till it has left it. There is no idea which we receive more constantly from sensation than solidity. Whether we move or rest, in what posture soever we are, we always feel something under us that supports us, and hinders our further sinking downwards; and the bodies which we daily handle make us perceive, that whilst they remain between them, they do, by an insurmountable force, hinder the approach of the parts of our hands that

[4] Locke, *Essay Concerning Human Understanding* (edition of 1854), Book II, Ch. iv.

John Locke (1632–1704), Englishman, educated at Oxford, practiced medicine for a time, but spent most of his life in political offices. He is known for his writings on education, religion and government, as well as the *Essay*, which first appeared at London in 1690.

press them. That which thus hinders the approach of two bodies, when they are moved one towards another, I call solidity. I will not dispute whether this acceptation of the word solid be nearer to its original signification than that which mathematicians use it in; it suffices that I think the common notion of solidity will allow, if not justify, this use of it; but if any one think it better to call it impenetrability, he has my consent. Only I have thought the term solidity the more proper to express this idea, not only because of its vulgar use in that sense, but also because it carries something more of positive in it than impenetrability, which is negative, and is perhaps more a consequence of solidity, than solidity itself. This, of all others, seems the idea most intimately connected with and essential to body, so as nowhere else to be found or imagined, but only in matter. And though our senses take no notice of it, but in masses of matter, of a bulk sufficient to cause a sensation in us; yet the mind, having once got this idea from such grosser sensible bodies, traces it further, and considers it, as well as figure, in the minutest particle of matter that can exist; and finds it inseparably inherent in body, wherever or however modified.

2. *Solidity fills Space.*—This is the idea which belongs to body, whereby we conceive it to fill space. The idea of which filling of space is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it, that it excludes all other solid substances; and will forever hinder any other two bodies, that move towards one another in a straight line, from coming to touch one another, unless it removes from between them in a line not parallel to that which they move in. This idea of it, the bodies which we ordinarily handle sufficiently furnish us with.

3. *Distinct from Space.*—This resistance, whereby it keeps other bodies out of the space which it possesses, is

so great that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, soft as it is, to their approaching one another, till it be removed out of their way: whereby our idea of solidity is distinguished both from pure space, which is capable neither of resistance nor motion; and from the ordinary idea of hardness. For a man may conceive two bodies at a distance, so as they may approach one another, without touching or displacing any solid thing, till their superficies come to meet; whereby, I think, we have the clear idea of space without solidity. For (not to go as far as annihilation of any particular body) I ask, whether a man cannot have the idea of the motion of one single body alone, without any other succeeding immediately into its place? I think it is evident he can; the idea of motion in one body no more including the idea of motion in another, than the idea of a square figure in one body includes the idea of a square figure in another. I do not ask, whether bodies do so exist, that the motion of one body cannot really be without the motion of another. To determine this either way, is to beg the question for or against a vacuum. But my question is, whether one cannot have the idea of one body moved, whilst others are at rest? And I think this no one will deny. If so, then the place it deserted gives us the idea of pure space without solidity, wherein any other body may enter, without either resistance or protrusion of anything. When the sucker in a pump is drawn, the space it filled in the tube is certainly the same whether any other body follows the motion of the sucker or not: nor does it imply a contradiction that, upon the motion of one body, another that is only contiguous to it should not follow it. The necessity of such a motion is built only on the supposition that the world is full; but not on the distinct ideas of space and solidity; which are

as different as resistance and not resistance, protrusion and not protrusion. And that men have ideas of space without a body, their very disputes about a vacuum plainly demonstrate.

5. *On Solidity depend Impulse, Resistance, and Protrusion.*—By this idea of solidity, is the extension of body distinguished from the extension of space: the extension of body being nothing but the cohesion or continuity of solid, separable movable parts; and the extension of space, the continuity of unsolid, inseparable, and immovable parts. Upon the solidity of bodies also depend their mutual impulse, resistance, and protrusion. Of pure space then, and solidity, there are several (amongst which I confess myself one) who persuade themselves they have clear and distinct ideas; and that they can think on space without any thing in it that resists or is protruded by body. This is the idea of pure space, which they think they have as clear as any idea they can have of the extension of body; the idea of the distance between the opposite parts of a concave superficies being equally as clear without, as with the idea of any solid parts between; and on the other side, they persuade themselves that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of other bodies, or resist their motion. If there be others that have not these two ideas distinct, but confound them, and make but one of them, I know not how men, who have the same idea under different names, or different ideas under the same name, can in that case talk with one another; any more than a man who, not being blind or deaf, has distinct ideas of the color of scarlet and the sound of a trumpet, would discourse concerning scarlet color with the blind man I mentioned in another place, who fancied that the idea of scarlet was like the sound of a trumpet.

6. *What it is.*—If any one asks me, What this solidity

is, I send him to his senses to inform him: let him put a flint or a football between his hands, and then endeavor to join them, and he will know. If he thinks this is not a sufficient explication of solidity, what it is, and wherein it consists; I promise to tell him what it is, and wherein it consists, when he tells me what thinking is, or wherein it consists; or explains to me what extension or motion is, which perhaps seems much easier. The simple ideas we have, are such as experience teaches them us; but if, beyond that, we endeavor by words to make them clearer in the mind, we shall succeed no better than if we went about to clear up the darkness of a blind man's mind by talking, and to discourse into him the ideas of light and colors. The reason of this I shall show in another place.

5. *As*[5] *clear an Idea of Spirit as Body.*—The same thing happens concerning the operations of the mind, viz., thinking, reasoning, fearings, etc., which we concluding not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it, we are apt to think these the actions of some other substance, which we call spirit; whereby yet it is evident that, having no other idea or notion of matter, but something wherein those many sensible qualities which affect our senses do subsist; by supposing a substance wherein thinking, knowing, doubting, and a power of moving, etc., do subsist, we have as clear a notion of the substance of spirit, as we have of body: the one being supposed to be (without knowing what it is) the substratum to those simple ideas we have from without; and the other supposed (with a like ignorance of what it is) to be the substratum to those operations which we experiment in ourselves within. It is plain then, that the idea of corporeal substance in matter is as remote from our conceptions and apprehensions, as that of spiritual sub-

[5] *Ibid.*, Book II, Ch. xxiii.

stance or spirit: and therefore, from our not having any notion of the substance of spirit, we can no more conclude its non-existence, than we can, for the same reason, deny the existence of body; it being as rational to affirm there is no body, because we have no clear and distinct idea of the substance of matter, as to say there is not spirit, because we have no clear and distinct idea of the substance of a spirit.

Our [6] observation employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge from whence all the ideas we have or can naturally have do spring.

3. *The Objects of Sensation one Source of Ideas.*—First, our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways wherein those objects do affect them: and thus we come by those ideas we have, of yellow, white, heat, cold, soft, hard, bitter, sweet, and all those which we call sensible qualities; which when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those perceptions. This great source of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call SENSATION.

4. *The Operations of our Minds the other Source of them.*—Secondly, the other fountain, from which experience furnisheth the understanding with ideas, is the perception of the operations of our own mind within us, as it is employed about the ideas it has got; which operations, when the soul comes to reflect on and consider, do furnish the understanding with another set of ideas, which could

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[6] *Ibid.*, Book II, Ch. i.

n. ...e had from things without; and such are perception, thinking, doubting, believing, reasoning, knowing, willing, and all the different actings of our own minds; which we being conscious of, and observing in ourselves, do from these receive into our understandings as distinct ideas, as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be called internal sense. But as I call the other Sensation, so I call this REFLECTION, the ideas it affords being such only as the mind gets by reflecting on its own operations within itself. By reflection then, in the following part of this discourse, I would be understood to mean that notice which the mind takes of its own operations, and the manner of them; by reason whereof there come to be ideas of these operations in the understanding. These two, I say, viz., external material things, as the objects of sensation; and the operations of our own minds within, as the objects of reflection; are to me the only originals from whence all our ideas take their beginnings. The term operations here I use in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought.

5. *All our Ideas are of the one or the other of these.*— The understanding seems to me not to have the least glimmering of any ideas which it does not receive from one of these two. External objects furnish the mind with the ideas of sensible qualities, which are all those different perceptions they produce in us; and the mind furnishes the understanding with ideas of its own operations.

These, when we have taken a full survey of them, and their several modes, combinations, and relations, we shall find to contain all our whole stock of ideas; and that we

have nothing in our minds which did not come in one of these two ways. Let any one examine his own thoughts, and thoroughly search into his understanding; and then let him tell me, whether all the original ideas he has there, are any other than of the objects of his senses, or of the operations of his mind, considered as objects of his reflection: and how great a mass of knowledge soever he imagines to be lodged there, he will, upon taking a strict view, see that he has not any idea in his mind, but what one of these two have imprinted; though, perhaps, with infinite variety compounded and enlarged by the understanding, as we shall see hereafter.

CHAPTER XVI

MATERIALISM

1. The Distinction between Primary and Secondary Qualities

This distinction is not necessarily a part of materialistic doctrine, though it is presupposed in the attempt to reduce all qualities of experience to the so-called "primary" ones. Locke's statement of the case is the *locus classicus* for the conception: [1]

7. *Ideas in the Mind, Qualities in Bodies.*—To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them as they are ideas or perceptions in our minds, and as they are modifications of matter in the bodies that cause such perceptions in us, that so we may not think (as perhaps usually is done) that they are exactly the images and resemblances of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us, than the names that stand for them are the likeness of our ideas, which yet upon hearing they are apt to excite in us.

8. Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call idea; and the power to produce any idea in our mind, I call quality of the subject wherein that power is. Thus a snowball having the power to produce in us the ideas of white, cold, and round, the power to produce those ideas in us, as they are in the snowball, I call qualities;

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[1] Locke, *Essay*, Book II, Ch. viii.

and as they are sensations or perceptions in our understandings, I call them ideas; which ideas, if I speak of sometimes as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us.

9. *Primary Qualities.*—Qualities thus considered in bodies are, first such as are utterly inseparable from the body, in what state soever it be; such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses, v.g., take a grain of wheat, divide it into two parts, each part has still solidity, extension, figure, and mobility; divide it again, and it retains still the same qualities; and so divide it on till the parts become insensible, they must retain still each of them all those qualities. For division (which is all that a mill, or pestle, or any other body, does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two or more distinct separate masses of matter, of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division, make a certain number. These I call original or primary qualities of body, which I think we may observe to produce simple ideas in us, viz., solidity, extension, figure, motion or rest, and number.

10. *Secondary Qualities.*—Secondly, such qualities which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, i.e., by the bulk, figure, texture, and motion of their insensible parts, as colors, sounds, tastes, etc., these I call secondary qualities. To these might be added a third sort,

which are allowed to be barely powers, though they are as much real qualities in the subject, as those which I, to comply with the common way of speaking, call qualities, but for distinction, secondary qualities. For the power in fire to produce a new color or consistency in wax or clay, by its primary qualities, is as much a quality in fire as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities, viz., the bulk, texture, and motion of its insensible parts.

11. *How primary Qualities produce their Ideas.*—The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way which we can conceive bodies to operate in.

12. If then external objects be not united to our minds when they produce ideas therein, and yet we perceive these original qualities in such of them as singly fall under our senses, it is evident that some motion must be thence continued by our nerves or animal spirits, by some parts of our bodies to the brain, or the seat of sensation, there to produce in our minds the particular ideas we have of them. And since the extension, figure, number, and motion of bodies of an observable bigness, may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes, and thereby convey to the brain some motion which produces these ideas which we have of them in us.

13. *How secondary.*—After the same manner that the ideas of these original qualities are produced in us, we may conceive that the ideas of secondary qualities are also produced, viz., by the operations of insensible particles on our senses. For it being manifest that there are bodies and good store of bodies, each whereof are so small, that we cannot by any of our senses discover either their bulk, figure, or motion as is evident in the particles of the air

and water, and other extremely smaller than those, perhaps as much smaller than the particles of air and water, as the particles of air and water are smaller than peas or hailstones; let us suppose at present, that the different motions and figures, bulk and number, of such particles, affecting the several organs of our senses, produce in us those different sensations which we have from the colors and smells of bodies; v.g., that a violet, by the impulse of such insensible particles of matter of peculiar figures and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue color and sweet scent of that flower to be produced in our minds; it being no more impossible to conceive that God should annex such ideas to such motions, with which they have no similitude, than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which the idea hath no resemblance.

14. What I have said concerning colors and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us, and depend on those primary qualities, viz., bulk, figure, texture, and motion of parts as I have said.

15. *Ideas of primary Qualities are Resemblances; of secondary, not.*—From whence I think it is easy to draw this observation, that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing like our ideas existing in the bodies themselves. They are in the bodies we denominate from them, only a power to produce those sensations in us; and what is sweet, blue, or warm in idea,

is but the certain bulk, figure, and motion of the insensible parts in the bodies themselves, which we call so.

16. Flame is denominated hot and light; snow, white and cold; and manna, white and sweet, from the ideas they produce in us; which qualities are commonly thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror; and it would by most men be judged very extravagant if one should say otherwise. And yet he that will consider that the same fire that at one distance produces in us the sensation of warmth, does at a nearer approach produce in us the far different sensation of pain, ought to bethink himself what reason he has to say that this idea of warmth, which was produced in him by the fire, is actually in the fire; and his idea of pain, which the same fire produced in him the same way, is not in the fire. Why is whiteness and coldness in snow, and pain not, when it produces the one and the other idea in us; and can do neither, but by the bulk, figure, number, and motion of its solid parts?

17. The particular bulk, number, figure, and motion of the parts of fire or snow are really in them, whether any one's senses perceive them or not, and therefore they may be called real qualities, because they really exist in those bodies; but light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colors, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colors, tastes, odors, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, i.e., bulk, figure, and motion of parts.

2. The Idea of Substance

Locke's discussion of this point has been a bulwark of opposition to materialism. It is included here because of its importance in the discussion: [2]

1. *Ideas of Substances, how made.*—The mind being, as I have declared, furnished with a great number of the simple ideas conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations, takes notice also that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick despatch, are called, so united in one subject, by one name; which, by inadvertency, we are apt afterward to talk of and consider as one simple idea, which indeed is a complication of many ideas together: because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some subtratum wherein they do subsist, and from which they do result; which therefore we call substance.

2. *Our Idea of Substance in general.*—So that if any one will examine himself concerning his notion of pure substance in general, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities which are capable of producing simple ideas in us; which qualities are commonly called accidents. If any one should be asked, what is the subject wherein color or weight inheres, he would have nothing to say, but the solid extended parts, and if he were demanded what is it that solidity and extension inhere in, he would not be in a much better case than the Indian before mentioned, who, saying that the world was supported by a great elephant, was asked what the elephant

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[2] Locke, *Essay, Book* II, Ch. xxiii.

rested on; to which his answer was—a great tortoise. But being again pressed to know what gave support to the broad-backed tortoise, replied—something, he knew not what. And thus here, as in all other cases where we use words without having clear and distinct ideas, we talk like children; who being questioned what such a thing is, which they know not, readily give this satisfactory answer, that it is something: which in truth signifies no more, when so used either by children or men, but that they know not what; and that the thing they pretend to know and talk of, is what they have no distinct idea of at all, and so are perfectly ignorant of it, and in the dark. The idea then we have, to which we give the general name substance, being nothing but the supposed but unknown, support of those qualities we find existing, which we imagine cannot subsist "sine re substante," without something to support them, we call that support substantia; which, according to the true import of the word, is, in plain English, standing under or upholding.

3. *Of the Sorts of Substances.*—An obscure and relative idea of substance in general being thus made, we come to have the ideas of particular sorts of substances, by collecting such combinations of simple ideas as are, by experience and observation of men's senses, taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution, or unknown essence of that substance. Thus we come to have the ideas of a man, horse, gold, water, etc., of which substances, whether any one has any other clear idea, farther than of certain simple ideas co-existing together, I appeal to every one's own experience. It is the ordinary qualities observable in iron or a diamond, put together, that make the true complex idea of those substances, which a smith or a jeweller commonly knows better than a philosopher; who, whatever substantial forms he may talk of, has no other idea of those substances than

what is framed by a collection of those simple ideas which are to be found in them; only we must take notice, that our complex ideas of substances, besides all these simple ideas they are made up of, have always the confused idea of something to which they belong, and in which they subsist. And therefore when we speak of any sort of substance, we say it is a thing having such or such qualities; as body is a thing that is extended, figured, and capable of motion; spirit, a thing capable of thinking; and so hardness, friability, and power to draw iron, we say, are qualities to be found in a loadstone. These, and the like fashions of speaking, intimate that the substance is supposed always something besides the extension, figure, solidity, motion, thinking, or other observable ideas, though we know not what it is.

4. *No clear idea of Substance in general.*—Hence, when we talk or think of any particular sort of corporeal substances, as horse, stone, etc., though the idea we have of either of them be but the complication or collection of those several simple ideas of sensible qualities, which we used to find united in the thing called horse or stone; yet, because we cannot conceive how they should subsist alone, nor one in another, we suppose them existing in and supported by some common subject; which support we denote by the name substance, though it be certain we have no clear or distinct idea of that thing we suppose a support.

3. The Interrelation of Brain and Mind

This has seemed to many thinkers one of the most forcible arguments of materialism. Buechner's work was very widely read during the latter part of the nineteenth century: [3]

That the brain—that soft organ which fills the interior of the cranium, and which, next to the liver, is of all the

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[3] Buechner, L., *Force and Matter,* pp. 209–216 (fourth English

organs of the human body the densest and therefore comparatively the richest in blood-supply—is the organ of thought, volition and sensation, and that the latter cannot be conceived without the former, is a truth about which hardly any physician or physiologist can be in doubt. Science, daily experience, and a number of the most telling facts, of necessity force this upon their conviction. Therefore, in sketching the subjoined outline of facts, we are less actuated by the desire of imparting something new to them, than a desire to give some clearer notions of the subject to the general public, which often finds insoluble problems in the simplest and clearest truths of natural research. It is strange that in this matter people have at all times stubbornly refused to acknowledge the irresistible power of facts; but this is easily accounted for, and considerations of a certain *amour-propre* and egotism are decidedly at the bottom of it.

The brain is the seat and organ of thought; its size, its shape, its development, the manner or grade of its composition and formation, and the arrangement of its individual parts, stand in a definite relation to the quality and quantity of the psychical and intellectual performances thereof. The important science of comparative anatomy is here of the greatest value, showing, as it does, how, through the animal kingdom, from the lowest up to the highest animal and to man himself, there exists a definite and gradually progressing proportion between the qualitative and quantitative condition of the brain. Man who, by virtue of his intellectual faculties, is admitted to be far above the collective animal world, has also—apart from a few exceptions

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Ludwig Buechner (1824–1899) was a physician of Darmstadt, but interested in the problems of philosophy. His book *Kraft und Stoff* achieved tremendous popularity, passing through more than twenty editions. It appeared first in 1855 at Darmstadt.

which shall be more closely examined by and by—the largest brain, *absolutely* and *relatively*, among all living beings. Although the bulk of brain possessed by a few animals, known as the largest now in existence, such as the whale, the elephant and the large species of dolphins, surpasses the brain of man, this apparent exception really arises from the greater size of those parts which do not represent either intelligence or capacity for thought, but serve the nervous system of the body as centers of movement and senation, as well as of unknown nervous action, and have necessarily a greater development of mass on account of the greater number and thickness of the nervous fibers in connection with them; whilst the parts of the brain concerned with the function of thought are in no animal equal in size, form, and relative composition to what they are in man. Therefore, quite another result follows when the *relative* weight of the brain, *i.e.*, its weight in relation to that of the body, is taken into consideration. In this respect also man (with a few insignificant exceptions) surpasses the whole animal world, and so much is this the case that, whilst in man the weight of the brain amounts to from one-fiftieth to one-thirty-fifth part of the weight of the body, in the dolphin it amounts only to the hundredth part, in the elephant to the five-hundredth, and in the whale to the three-thousandth part of the aggregate weight of their respective bodies. If this relative proportion is calculated upon the mass of the body, then (according to Leuret) the average weight of brain to each *ten thousand* parts of body-substance is: in fishes, 1:8; in reptiles, 7:6; in birds, 42:2; in mammals, 53:8; in man, 277:8. These figures sufficiently show the enormous gradual increase of the mass of brain in the vertebrate sub-kingdom, corresponding to the rise in the intellectual scale. Even among the articulata—whose highest divisions in perfection of organization and intellectual endowment

are far above the lowest divisions of the vertebrata though the latter stand above them as a whole—the *bees* and *ants*, as also their nearest relations, whose extraordinary and almost miraculous intellectual capacity has become proverbial, are distinguished by a brain highly developed in shape and composition, and very large in proportion to the size of their bodies.

However, the intellectual value of the brain, both among men and animals, must not be computed exclusively by its size, that is by its size as a whole, which is a very imperfect standard of its intellectual capacity, but also and very much more so by the proportions of its shape and composition. "Not the quantity only, but also the quality of the nervous tissues," says Valentin (*Textbook of Physiology*) "and the consequent amount of energy, and of the reciprocal action of the individual elements, forms the measure of the proportionate value of intellectual activity."

In this respect also comparative anatomy and physiology have shown that man stands higher than all other creatures; for instance, in man the hemispheres of the cerebrum, the external layer of which—the *gray matter*—is to be regarded as the peculiar seat of intellectual activity, are far more highly developed than in any other animal in comparison with the cerebellum. When the brain is looked at from above, they completely cover the cerebellum, while this is not the case with the brain of any brute. Closely connected with this development of the cerebral hemispheres is the greater development of the famous *convolutions* of the brain, which cover the external surface, disposed in a regular system of winding, interceding furrows, and which have no other use than that of giving the greatest possible extension and anatomical complexity of arrangement to the gray matter of the brain; this substance covering the whole surface to the depth of several lines, and the fundamental elements of the nervous system,

fibers and *cells* (ganglionic or nervous centers), being so arranged in it as to afford the greatest possible number of material points of contact between them. This is all the more necessary since it is the function of the fibers to convey to the brain impressions from without and from the body itself, while the ganglionic or nerve cells, having received these impressions, work upon them, and with the aid of the efferent and the intercommunicating fibers transmute them into reflective or volitional impulses. The fibrous tissue of the brain is dead white in color, whilst, wherever nerve-cells or ganglionic masses are found with them, the brain substance is of gray-rose color, partly because of the cells and partly from its greater vascularity; hence the distinction between the *gray* and the *white* matter of the brain. This gray matter has also been termed the *brain-mantle,* partly because it covers the brain like a mantle, and partly because of its peculiar disposition in folds. This arrangement increases the mass or extension of the gray matter, which covers all the folds of the windings to the before-mentioned depth, thus obtaining *more than twelve times* the superficial extent, without increasing the size of the head or the arch of the skull to an unnatural or excessive proportion.

This brain-mantle, as we have said, is without any doubt whatever the portion of the brain to which are entrusted the higher mental or intellectual functions, such as thought, imagination, consciousness, sensation and volition; while the underlying white or fibrous tissue only serves as an organ of conduction, and the islands of gray matter in the interior of the cerebrum serve as centers for the nervous action of the brain, in its capacity of superintendent of the whole nervous system.

If the human brain, as shown in the foregoing, surpasses all animal brains in absolute or relative development of mass, except in the few above-mentioned instances, it is

still more above them in the internal arrangement of its individual parts, especially in the development and arrangement of the gray substance and of the convolutions, which in extent, depth, number, multiformity and asymmetry or irregularity of disposition are approached by no animal brain; perhaps a few exceptions to this should be made in favor of the brain of the large anthropoid apes, though these again labor under other and important defects. The lower we descend in the animal scale, the more rapidly do the numbers of convolutions decrease. Thus, the brain-surface of fishes and amphibians is quite, and that of birds *almost* smooth and without convolutions. The lowest orders of mammalia have also smooth brains, or show but the merest trace of convolutions; and it is only in apes, elephants, dolphins, dogs, carnivora and ruminants that they obtain a larger development. On the other hand, the brain of bees and ants is very rich in convolutions.

The same differences that exist between human and animal brains are also to be noticed in comparing individual human brains with each other, both in regard to the convolutions and the increase of surface obtained thereby; it is easy to prove by countless examples that intellectual endowment or capacity for achievement is like a mathematical function of the development of the convolutions and of the gray matter of the brain. This is true not only of individual races and nations, but equally of individual specimens of mankind. The subject has been treated in a remarkable work by that painstaking scientist, Dr. Hermann Wagner, from which it clearly appears that *the superficial extent of the brain increases with the intellectual power*. Thus, Wagner found the aggregate area of the brain of an orang-outang he measured, to amount only to a fourth of that of the average human brain, while in the case of a manual laborer the surface of the brain was some fifty square inches less than in the case of two scientists.

The convolutions of the brain of Beethoven, the great musician, were, according to Dr. J. Wagner's report, "twice as deep and numerous as usual." On the other hand, Longet shows that in the brains of idiots, or creatures who are born imbeciles the convolutions are less deep and the gray matter is less thick than in normal brains. A child, also, despite the large size of his brain in comparison with that of his body, has but very imperfect convolutions, and only develops these after attaining a certain age. Prior to the ninth month of pregnancy the convolutions are not even visible; until then the human fœtus has a smooth brain, like that of the lower vertebrates.

We should, however, fall into a serious error if we rated the intellectual value of a brain *only* by the conditions above-mentioned, by its size and the number of its convolutions; much more depends on the details of its internal structure and its chemical composition, so that if an individual brain be deficient in *one* direction, the defect may be compensated by advantages in other directions. Especially does it appear averred from the unanimous statements of brain-anatomists, that the physical density or firmness of the mass of the brain is beyond doubt of very great importance, so that the brain of an intelligent and clever person is denser and firmer than that of a stupid and weak-minded one. So also is the brain of higher races, which have advanced in culture, proportionately more dense, firm and compact than that of lower or savage ones. It is well known that the brain of the child in comparison to that of the adult is remarkable for its softness and want of density, owing to the greater percentage of water it contains. The microscopic peculiarities of the brain, the commencement of very indistinct fibers, the difference between gray and white matter, the large blood-supply, the furrows, etc., only become recognizable in the course of time and in proportion as the intellectual power increases.

Conversely, as the brain grows older and the intellectual power declines, the gray substance absorbs more water and the brain returns to a condition similar to that of childhood. In doing so, the brain of old people subsides as a rule into a state of atrophy and shriveling up; gaps are formed between the convolutions which formerly were close together, and these gaps become filled with water; the substance of the brain itself becomes more tenacious, the color deeper gray, the blood-supply less, and the convolutions become smaller. The weight of the brain, having rapidly increased up to the twenty-fifth year of life, and having reached its maximum volume between the age of forty and fifty, now begins to fall off. Everybody knows that in keeping with what we have said, reason comes with years, and also departs with years.

"The greatest thinker of his age," says Tuttle, "may in one hour's illness lose all his intelligence; in advanced age he enters a second childhood, as helpless and simple as the first. With the decay of the body decays also the reason, and with the last breath it expires, the same as a lamp does without oil, flickering feebly." This is exactly the reverse of what would happen if, as so many think, the spirit were a thing independent of the body, and the spiritual powers increased in proportion as the body drew nearer to its dissolution.

From what has already been said it may readily be inferred that the proportionate thickness of the gray matter is of the highest importance in connection with intellectual capacity, and this thickness varies very much among animals and men. Thus, Dr. J. Jessen perceived to his great surprise that the brain of a female idiot, called Nasmer, twenty-three years old, showed numerous well-developed convolutions on the surface, but he soon found the solution of the difficulty when, on dissecting the brain, he saw that the gray matter had become atrophied, apparently from

disease contracted in early childhood, and consequently had become very thin and narrow. Jessen's researches also prove that a deficiency of superficial development of gray matter, brought about by the smallness of the cranium, may be made up for by a greater development in thickness. This in itself explains—apart from many other compensating agencies—how it is that a comparatively small brain may exceed in mental power a comparatively larger one, just as a small nose may exceed a large one in olfactory power. This also seems to explain, at least partially, the capacity for intellectual performances of some animals, such as dogs and others, which are possessed of comparatively small and otherwise less perfectly developed brains.

CHAPTER XVII

THE PHILOSOPHY OF KANT

1. The Problem of the Critique of Pure Reason

In the opinion of Kant two tendencies were dominant in philosophy, one dogmatism, or overconfidence in human reason, the other skepticism, or too little confidence in it. On this account the need of the age seemed to him to be a fresh effort to steer clear of both extremes, and keep to a middle course, the course of "criticism":[1]

This may well be called the age of criticism, a criticism from which nothing need hope to escape. When religion seeks to shelter itself behind its sanctity, and law behind its majesty, they justly awaken suspicion against themselves, and lose all claim to the sincere respect which reason yields only to that which has been able to bear the test of its free and open scrutiny.

Metaphysic has been the battlefield of endless conflicts. Dogmatism at first held despotic sway; but . . . from time to time skepticism destroyed all settled order of society; . . . and now a widespread indifferentism prevails. Never has metaphysic been so fortunate as to strike into the sure

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[1] *The Philosophy of Kant, as Contained in Extracts from his own Writings*, selected and translated by John Watson, pp. 1–7 (Maclehose, Jackson and Co., 1919); reprinted by permission of the publishers.

Immanuel Kant (1724–1804), was born and educated in Koenigsberg, East Prussia. He spent his life as tutor, librarian, and professor there. He was a widely read man, holds a place in science as one of the propounders of the nebular hypothesis in astronomy, and is the central figure of modern philosophy. His *Kritik der reinen Vernunft* was first published at Riga in 1781; the *Kritik der reinen praktischen Vernunft* at the same place in 1788.

path of science, but has kept groping about, and groping, too, among mere ideas. What can be the reason of this failure? Is a science of metaphysic impossible? Then, why should nature disquiet us with a restless longing after it, as if it were one of our most important concerns? Nay more, how can we put any faith in human reason, if in one of the very things that we most desire to know, it not merely forsakes us, but lures us on by false hopes only to cheat us in the end? Or are there any indications that the true path has hitherto been missed, and that by starting afresh we may yet succeed where others have failed?

It seems to me that the intellectual revolution, by which at a bound mathematics and physics became what they now are, is so remarkable, that we are called upon to ask what was the essential feature of the change that proved so advantageous to them, and to try at least to apply to metaphysic as far as possible a method that has been successful in other sciences of reason. In mathematics I believe that, after a long period of groping, the true path was disclosed in the happy inspiration of a single man. If that man was Thales, things must suddenly have appeared to him in a new light, the moment he saw how the properties of the isosceles triangle could be demonstrated. The true method, as he found, was not to inspect the visible figure of the triangle, or to analyze the bare conception of it, and from this, as it were, to read off its properties, but to bring out what was necessarily implied in the conception that he had himself formed *a priori,* and put into the figure, in the construction by which he presented it to himself.

Physics took a much longer time than mathematics to enter on the highway of science, but here, too, a sudden revolution in the way of looking at things took place. When Galileo caused balls which he had carefully weighed to roll down an inclined plane, or Torricelli made the air

bear up a weight which he knew beforehand to be equal to a standard column of water, a new light broke on the mind of the scientific discoverer. It was seen that reason has insight only into that which it produces after a plan of its own, and that it must itself lead the way with principles of judgment based upon fixed laws, and force nature to answer its questions. Even experimental physics, therefore, owes the beneficial revolution in its point of view entirely to the idea, that, while reason can know nothing purely of itself, yet that which it has itself put into nature must be its guide to the discovery of all that it can learn from nature.

In metaphysical speculations it has always been assumed that all our knowledge must conform to objects; but every attempt from this point of view to extend our knowledge of objects *a priori* by means of conceptions has ended in failure. The time has now come to ask, whether better progress may not be made by supposing that objects must conform to our knowledge. Plainly this would better agree with the avowed aim of metaphysic, to determine the nature of objects *a priori,* or before they are actually presented. Our suggestion is similar to that of Copernicus in astronomy, who, finding it impossible to explain the movements of the heavenly bodies on the supposition that they turned round the spectator, tried whether he might not succeed better by supposing the spectator to revolve and the stars to remain at rest. Let us make a similar experiment in metaphysic with *perception.* If it were really necessary for our perception to conform to the nature of objects, I do not see how we could know anything of it *a priori;* but if the sensible object must conform to the constitution of our faculty of perception, I see no difficulty in the matter. Perception, however, can become knowledge only if it is related in some way to the object which it determines. Now here again I may suppose, either that the

conceptions through which I effect that determination conform to the objects, or that the objects, in other words the experience in which alone the objects are known, conform to conceptions. In the former case, I fall into the same perplexity as before, and fail to explain how such conceptions can be known *a priori*. In the latter case, the outlook is more hopeful. For, experience is itself a mode of knowledge which implies intelligence, and intelligence has a rule of its own, which must be an *a priori* condition of all knowledge of objects presented to it. To this rule, as expressed in *a priori* conceptions, all objects of experience must necessarily conform, and with it they must agree.

Our experiment succeeds as well as we could wish, and gives promise that metaphysic may enter upon the sure course of a science, at least in its first part, where it is occupied with those *a priori* conceptions to which the corresponding objects can be given. The new point of view enables us to explain how there can be *a priori* knowledge, and what is more, to furnish satisfactory proofs of the laws that lie at the basis of nature as a totality of objects of experience. But the consequences that flow from this deduction of our faculty of *a priori* knowledge, which constitutes the first part of our inquiry, are unexpected, and at first sight seem to be fatal to the aims of metaphysic, with which we have to deal in the second part of it. For we are brought to the conclusion that we never can transcend the limits of possible experience, and therefore never can realize the object with which metaphysic is primarily concerned. In truth, however, no better indirect proof could be given that we were correct in holding, as the result of our first estimate of the *a priori* knowledge of reason, that such knowledge relates not at all to the thing as it exists in itself, but only to phenomena. For that which necessarily forces us to go beyond the limits of experience and of all phenomena is the *unconditioned,*

which reason demands of things in themselves, and by right and necessity seeks in the complete series of conditions for everything conditioned. If, then, we find that we cannot think the unconditioned without contradiction, on the supposition of our experience conforming to objects as things in themselves; while, on the contrary, the contradiction disappears, on the supposition that our knowledge does not conform to things in themselves, but that objects as they are given to us as phenomena conform to our knowledge; we are entitled to conclude that what we at first assumed as an hypothesis is now established as a truth.

It may seem from this that the result of our critical investigation is purely *negative*, and merely warns us not to venture with speculative reason beyond the limits of experience. And no doubt this is its first use; but a *positive* result is obtained when it is seen that the principles with which speculative reason ventures beyond its proper limits, in reality do not *extend* the province of reason, but inevitably *narrow it*. For in seeking to go altogether beyond its true limits, the limits of sensibility, those principles threaten to supplant pure reason in its practical aspect. Let us suppose that the necessary distinction which our criticism shows to exist between things as objects of experience and the same things as they are in themselves, had not been made. Then the principle of causality, and with it the mechanical conception of nature as determined by it, would apply to all things in general as efficient causes. Hence I could not, without palpable contradiction, say of the same being, for instance the human soul, that its will is free, and yet is subject to the necessity of nature, that is, is not free. But, if our criticism is sound and the object may be taken in two distinct senses, on the one hand as a phenomenon, and on the other hand as a thing in itself; there is no contradiction in supposing that the very same will, in its visible acts as a phenomenon, is *not*

free, but necessarily subject to the law of nature, while yet, as belonging to a thing in itself, it is not subject to that law, but is *free.* Now, morality requires us only to be able to think freedom without self-contradiction, not to understand it; it is enough that our conception of the act as free puts no obstacle in the way of the conception of it as mechanically necessary, for the act stands in quite a different relation to freedom from that in which it stands to the mechanism of nature. From the critical point of view, therefore, the doctrine of morality and the doctrine of nature may each be true in its own sphere; which could never have been shown had not criticism previously established our unavoidable ignorance of things in themselves, and limited all that we can *know* to mere phenomena. I have, therefore, found it necessary to deny *knowledge* of *God, freedom,* and *immortality,* in order to find a place for *faith.*

It is dogmatism, or the preconception that progress in metaphysic may be made without a previous criticism of pure reason, that is responsible for that dogmatic unbelief which is so hostile to morality. The first and most important task of philosophy is to deprive metaphysic once for all of its pernicious influence by closing up the sources of its errors. Our critique is not opposed to the dogmatic procedure of reason as a science of pure knowledge, which must be strictly proved *a priori* from well-founded principles, but only to dogmatism, that is, to the presumption that we may follow the time-honored method of constructing a system of pure metaphysic out of principles that rest upon mere conceptions, without first asking in what way reason has come into possession of them, and by what right it employs them. Dogmatism, in a word, is the dogmatic procedure of reason *without any previous criticism of its own powers.*

The critique of pure reason is not a criticism of books

and systems, but of the faculty of reason in general, in so far as reason seeks for knowledge that is independent of all experience. I have evaded none of its questions, on the plea of the imbecility of human reason. In fact, reason is so perfect a unity that, if it were in principle inadequate to the solution of even a single one of the questions which by its very nature it raises, we might at once with perfect certainty set it aside as incapable of answering any of the others. For as it is a true organic unity, in which the whole exists for the sake of each of the parts, and each part for the sake of the whole, the slightest imperfection, whether it is due to a flaw or to a defect, will inevitably betray itself in use.

2. The Result of the Transcendental Analytic

Kant calls the study of the structure and capacity of the mind to know the "Transcendental Analytic." His conclusion is that the field within which human knowledge can occur is bounded by this structure and capacity of the mind, and therefore limited to *human experience.*[2]

We have seen that, whatever understanding produces from itself, it holds in trust solely in the interest of experience. The principles of pure understanding, whether as mathematical they are *a priori* constitutive principles, or as dynamical merely regulative principles, contain nothing but what may be called the pure schema for a possible experience. For experience derives its unity entirely from the synthetic unity which understanding imparts, originally and spontaneously, to the synthesis of imagination in relation to apperception; and phenomena, as the data for a possible knowledge, must therefore stand *a priori* in relation to that synthetic unity and in harmony with it.

Now the proposition that understanding can never make

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[2] *Ibid.*, pp. 129–134.

a transcendental use, but only an empirical use, of any of its *a priori* principles, is seen to have very important consequences, so soon as it is thoroughly understood. A conception is employed transcendentally when it occurs in a proposition regarding things *as such* or *in themselves;* it is employed empirically when the proposition relates merely to *phenomena,* or objects of a possible experience. Only the empirical use is admissible. Every conception requires, firstly, the logical form of conception or thought, and, secondly the possibility of an object being empirically given to which it may be applied. Where no such object can be given, the conception is empty and meaningless, containing nothing but the logical function which is necessary in order to form a conception out of any data that may be given. Now, the only way in which an object can be presented is in perception. And this perception must be empirical; for, although pure perception is possible *a priori* before the presentation of an object, yet, as it is a mere form, it can by itself have no object to which it may apply, and therefore it can have no objective value ascribed to it. Hence all conceptions, and with them all principles, even when they are possible *a priori,* are none the less relative to empirical perceptions as the data for a possible experience. Apart from this relation they have no objective validity, but are a mere play of imagination or of understanding.

That this limitation applies to all the categories, and to all the principles derived from them, is evident, if only from this, that we cannot give a *real* definition of even a single one of them, or in other words, make the possibility of their object intelligible, without directly referring to the conditions of sensibility, and therefore to the form of phenomena. The categories are thus necessarily limited to phenomena as their sole object, and, if this limitation is taken away, all meaning or objective relation vanishes from

them, and no possible instance of an object can be adduced to make the conception comprehensible.

There is therefore no way of avoiding the conclusion that the pure conceptions of understanding can never be employed transcendentally, but only empirically, and that the principles of pure understanding can apply only to objects of sense, as conforming to the universal conditions of a possible experience, and never to things as such, or apart from the manner in which we are capable of perceiving them.

The Transcendental Analytic has brought us to this important conclusion, that understanding can never do more than supply by anticipation the form for a possible experience; and, as nothing but a phenomenon can be an object of experience, it has taught us that understanding cannot possibly transcend the limits of sensibility, beyond which no objects are presented to us. The principles of pure understanding are merely exponents of phenomena, and for the proud name of Ontology, as a science that claims to supply in a systematic doctrine *a priori* synthetic knowledge of things as such, must be substituted the more modest claims of an Analytic of Pure Understanding.

If from empirical knowledge is taken away all that thought contributes in its categories, there is no longer any knowledge of an object. By mere perception nothing whatever is thought, and the mere fact that I am conscious of an affection of my sensibility does not entitle me to say that I am conscious of my affection as related to any object. On the other hand, even if all perception is taken away, there still remains the form of thought, or the manner in which the various elements of a possible perception are capable of being combined in relation to an object. The categories have therefore in this sense a wider reach than perceptions of sense, that they think objects in general, without looking to the particular manner in which they

may be presented. But although they are so far independent of sensibility, they do not determine a larger sphere of objects; for we are not entitled to say that non-sensuous objects can be presented, unless we can show that a sort of perception is possible that is not sensuous. Now this we cannot possibly do.

A conception which cannot be known in any way to have objective reality may be called problematic, if it is not self-contradictory, and if it is bound up with the knowledge gained through certain conceptions the range of which it serves to limit. Now the conception of a *noumenon,* that is, of a thing that cannot be an object of sense, but is thought, by pure understanding alone, as a thing in itself, is certainly not self-contradictory; for we cannot know with certainty that sensibility is the only possible mode of perception. Moreover, the conception of a noumenon is necessary to prevent sensuous perception from claiming to extend to things in themselves, and to set a limit to the objective validity of sensuous knowledge. In the end, however, we are unable to understand how such noumena are possible at all, and the realm beyond the sphere of phenomena is for us empty. We have indeed an understanding that *problematically* stretches beyond the sphere of phenomena, but we have no perception in which objects beyond the field of sensibility can be presented, nor can we conceive how such a perception is even possible. Hence understanding cannot be employed *assertorically* beyond the world of phenomena. The conception of a noumenon is, therefore, merely the conception of a *limit,* a conception which is only of negative use, and but serves to check the presumption of sensibility. But although it is unable to establish anything positive beyond the sphere of phenomena, the idea of a noumenon is not a mere arbitrary fiction, but is connected in the closest way with the limitation of the sensibility to phenomena.

The *positive* division of objects into phenomena and noumena, and of the world into a sensible and intelligible world, is therefore quite inadmissible. Certainly, the distinction of conceptions as sensuous and intellectual is legitimate. But, as intellectual conceptions do not determine any object for themselves, they can have no objective validity. If abstraction is made from sense, how shall it be made intelligible, that the categories, which are then the only means of determining noumena, have any meaning whatever? The mere unity of thought is not the same thing as the determination of an object; for knowledge also requires that the object to which that unity can be applied, should be capable of being presented in a perception. At the same time, if the conception of a noumenon is interpreted in a problematic sense, it is not only admissible but indispensable, serving as it does to define the limits of sensibility. In that sense, however, a noumenon is not a special kind of object for our understanding, namely, an *intelligible object;* on the contrary it is problematic whether there is any understanding that could have such an object actually before it. Such an understanding would not know its object discursively by means of categories, but intuitively in a non-sensuous perception; and how this is possible we cannot form even the faintest conception. Still, in the conception of a noumenon our understanding gets a sort of negative extension; for in calling things in themselves *noumena,* and viewing them as not objects of sense it rather limits the sensibility than is limited by sensibility. At the same time, understanding cannot limit sensibility without also setting limits to itself, for it has instantly to add, that things in themselves cannot be known by means of categories, and all that remains is to think them under a name that indicates something unknown.

There are, therefore, no principles through which the conception of pure, merely intelligible objects could ever

be applied, for we cannot imagine any way in which such objects could be presented to us. The problematic thought, which leaves a place open for intelligible objects, serves only, as a sort of empty space, to limit the empirical principles, without containing within it or indicating any object of knowledge that lies outside the sphere of those principles.

3. The Postulates of Practical Reason

According to Kant there are some fundamental doctrines which cannot be scientifically proved, but which have to be assumed from the practical standpoint in order to make morality intelligible and significant. These assumptions he calls the postulates of practical reason. They are: *freedom, immortality,* and *God.*[3]

8. *Theorem* 4.

Autonomy of will is the sole principle of all moral laws, and of the duties which are in conformity with them. Heteronomy of will, on the other hand, not only supplies no basis for obligation, but it is contradictory of the principle of obligation and of the morality of the will. The single principle of morality thus consists in independence of all matter of the law, that is, of every object of desire, and in the determination of the will through the mere universal form of law, of which a maxim must be capable. This independence of all matter is *freedom* in the negative sense, just as the self-legislation of pure practical reason is freedom in the positive sense. Hence the moral law simply expresses the *autonomy* of pure practical reason, that is, of freedom. Autonomy is therefore the formal condition of all maxims, and apart from this condition there can be no harmony of the will with the supreme practical law. If the matter of volition, which is just the object

[3] *Ibid.*, pp. 270–271. The passage is from the *Critique of Practical Reason,* Book I, Ch. i.

of desire as connected with the law, should enter into the practical law as the *condition of its possibility,* there will be a heteronomy of the will; for the will must then follow some natural impulse or desire, and must therefore be dependent upon the law of nature. Plainly the will in that case does not give law to itself, but merely prescribes the rational course to be taken in following certain pathological laws. Our maxims cannot contain in themselves the form of universal law, and therefore they not only cannot be the basis of obligation, but they contradict the principle of a *pure* practical reason. Even, therefore, if the action which proceeds from them should be in harmony with moral law, they are opposed to a truly moral disposition.

The Immortality of the Soul

The [4] object of a will that is capable of being determined by the moral law, is the production in the world of the highest good. Now, the supreme condition of the highest good is the perfect harmony of the disposition with the moral law. Such a harmony must be possible, not less than the object of the will, for it is implied in the command to promote that object. Perfect harmony of the will with the moral law is *holiness,* a perfection of which no rational being existing in the world of sense is capable at any moment of his life. Yet holiness is demanded as practically necessary, and it can be found only in an infinite progress towards perfect harmony with the moral law. Pure practical reason therefore forces us to assume such a practical progress towards perfection as the real object of our will.

Now, this infinite progress is possible only if we presuppose that the existence of a rational being is prolonged to

[4] *Ibid.,* pp. 294–300.

infinity, and that he retains his personality for all time. This is what we mean by the immortality of the soul. The highest good is therefore practically possible, only if we presuppose the immortality of the soul. Thus immortality is inseparably bound up with the moral law. It is a *postulate* of pure practical reason, that is, a proposition that cannot be proved *theoretically*, but depends upon an *a priori* practical law of unconditioned validity.

A finite rational being is capable only of an infinite progress from lower to higher stages of moral perfection. The Infinite Being, who is free from the limits of time, sees in this series, which for us has no end, a whole that is in harmony with the moral law. Holiness He demands inexorably as a duty in order to assign to everyone his exact share in the highest good; and this holiness lies completely before Him in a single intellectual perception of rational beings. Created beings can hope to share in the highest good only in so far as they are conscious of having stood the test of the moral law. If in the past they have advanced from lower to higher degrees of morality, and have thus proved the strength of their resolution, they may hope to make unbroken progress in the future as long as they live here, and even beyond the present life. They can never hope in this life, or, indeed, at any imaginable point of time in the future life, to be in perfect harmony with the will of God, but they may hope for this harmony in the infinite duration of their existence as it is surveyed by God alone.

The Existence of God

The moral law leads us to postulate not only the immortality of the soul, but the existence of God. For it shows us how happiness in proportion to morality, which is the second element of the highest good, is possible, and to pos-

tulate it for reasons as perfectly disinterested as in the former case. This second postulate of the existence of God rests upon the necessity of presupposing the existence of a cause adequate to the effect which has to be explained.

Happiness is the state of a rational being existing in the world who experiences through the whole of his life whatever he desires and wills. It, therefore, presupposes that nature is in harmony with his whole end, as well as with the essential principles by which his will is determined. Now, the moral law, being a law of free beings, commands us to act from motives that are entirely independent of nature and of the harmony of nature with our desires. But a rational agent in the world is not the cause of the world and of nature itself. There is no reason whatever, in the case of a being who is a part of the world and is dependent upon it, why the moral law should imply a necessary connection between happiness and morality proportionate to happiness. For the will of such a being is not the cause of nature, and therefore he has no power to bring nature into complete harmony with his principles of action. At the same time, in the practical problem of pure reason, that is, in the necessary pursuit of the highest good, such a connection is postulated as necessary. He *ought* to seek to promote the highest good, and therefore the highest good must be possible. He must therefore *postulate* the existence of a cause of nature as a whole, which is distinct from nature, and which is able to connect happiness and morality in exact harmony with each other. Now, this supreme cause must be the ground of the harmony of nature, not simply with a law of the will of a rational being, but also with the consciousness of this law insofar as it is made the supreme principle of the agent's will. That cause must therefore be in harmony not merely with the form of morality, but with morality as willed by a rational being, that is, with his moral character. The high-

est good is thus capable of being realized in the world, only if there exists a supreme cause of nature whose causality is in harmony with the moral character of the agent. Now, a being that is capable of acting from the consciousness of law is a rational being, an *intelligence,* and the causality of that being, proceeding as it does from the consciousness of law, is a *will.* There is therefore implied, in the idea of the highest good, a being who is the supreme cause of nature, and who is the cause or author of nature through his intelligence and will, that is, *God.* If, therefore, we are entitled to postulate the *highest derivative good,* or the best world, we must also postulate the actual existence of the highest original good, that is, the existence of God. Now, it is our duty to promote the highest good, and hence it is not only allowable, but it is necessarily bound up with the very idea of duty, that we should presuppose the possibility of this highest good. And as this possibility can be established only under condition that God exists, the presupposition of the highest good is inseparably connected with duty, or, in other words, it is morally necessary to hold the existence of God.

The Postulates of Pure Practical Reason

The postulates of pure practical reason are not theoretical dogmas, but presuppositions which are practically necessary. They do not enlarge our speculative knowledge, but give objective reality to the ideas of speculative reason in general, and justify it in the use of conceptions which it could not otherwise venture to regard as even possible.

These postulates are *immortality, freedom* (in the positive sense, as the causality of a being who belongs to the intelligible world), and the *existence of God.* The *first* rests upon the practically necessary condition, that existence should continue long enough to permit of the com-

plete realization of the moral law. The *second* arises from the necessary presupposition of man's independence of the world of sense, and his capability of determining his will in comformity with the law of an intelligible world, that is, the law of freedom. The *third* depends upon the necessity of presupposing a supreme, self-existent good, that is, the existence of God, as the condition under which the highest good may be realized in such an intelligible world.

Our reverence for the moral law necessarily compels us to seek for the realization of the highest good, and hence the reality of the highest good must be presupposed. By means of the postulates of practical reason, we are brought to conceptions, which speculative reason no doubt set up as problems to be solved, but which it was itself unable to solve. The first conception is that of immortality. This conception involved speculative reason in *paralogisms;* for it could find no trace of the permanence required for the conversion of the psychological conception of an ultimate subject into the real consciousness of a substance. Practical reason supplies what is required, by the postulate of a duration adequate to the complete realization of the moral law in the highest good. It leads, secondly, to the *cosmological* idea of an intelligible world and the consciousness of our existence in that world. This idea involved speculative reason in an *antinomy,* for the solution of which it had to fall back upon a problematic conception, the objective reality of which it could not prove. But practical reason, by means of the postulate of freedom, shows that idea to have objective reality. Lastly, practical reason brings us to the conception of a Supreme Being. This conception speculative reason was able to think, but it could not show it to be more than a transcendental *ideal.* Practical reason, on the other hand, gives meaning to this idea, by showing that a Supreme Being is the supreme principle of the highest good in an intelligible world, and

is endowed with the sovereign power of prescribing moral laws in that world.

Is our knowledge, then, actually enlarged by practical reason? Is that which for speculative reason is *transcendent* for practical reason *immanent?* Undoubtedly it is, but only in relation to action. Practical reason cannot give us a *theoretical knowledge* of our own soul, of the intelligible world, or of a Supreme Being, as these are in themselves. All that it can do is to unite the conception of them in the *practical conception* of the highest good, which is the object of our will, and to unite them entirely *a priori* through pure reason. This union is effected only through the medium of the moral law, and merely in relation to that which it commands with a view to the highest good. For we cannot understand how freedom is possible, or how a free cause would appear to us if it were theoretically and *positively* known; all that we can say is, that a free cause is postulated by the moral law and for the sake of the moral law. The same remark applies to the other ideas. No human intelligence can ever understand how immortality and the existence of God are possible; but, on the other hand, no sophistry will ever destroy the faith of even the most unreflective man in their reality.

CHAPTER XVIII

SPIRITUALISM OR IDEALISM

1. The Existence of the Material World

Berkeley's reasons for questioning the independent existence of matter are summed up in the work from which the following selection is taken:[1]

1. It is evident to any one who takes a survey of the *objects of human knowledge,* that they are either *ideas* actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or lastly, *ideas* formed by help of memory and imagination—either compounding, dividing, or barely representing those originally perceived in the aforesaid ways. By sight I have the ideas of light and colors, with their several degrees and variations. By touch I perceive hard and soft, heat and cold, motion and resistance, and of all these more and less either as to quantity or degree. Smelling furnishes me with odors; the palate with tastes; and hearing conveys sounds to the mind in all their variety of tone and composition. And as several of these are observed to accompany each other, they come to be marked by one name, and so to be reputed as one thing. Thus, for

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[1] Berkeley, *Principles of Human Knowledge,* 2d edition (1734). George Berkeley (1685–1753) was born in Ireland, educated at Dublin, became a clergyman, and entered upon the project of establishing a university in the Bermuda Islands. He lived in Rhode Island from 1728 to 1731. He is known in psychology for his *Theory of Vision,* but is famous chiefly for his idealistic philosophy. The *Principles of Human Knowledge* was first published at Dublin in 1710.

example, a certain color, taste, smell, figure and consistence having been observed to go together, are accounted one distinct thing, signified by the name *apple;* other collections of ideas constitute a stone, a tree, a brook, and the like sensible things; which as they are pleasing or disagreeable excite the passions of love, hatred, joy, grief, and so forth.

2. But, besides all that endless variety of ideas or objects of knowledge, there is likewise something which knows or perceives them, and exercises divers operations, as willing, imagining, remembering, about them. This perceiving, active being is what I call *mind, spirit, soul,* or *myself.* By which words I do not denote any one of my ideas, but a thing entirely distinct from them, wherein they exist, or, which is the same thing, whereby they are perceived—for the existence of an idea consists in being perceived.

3. That neither our thoughts, nor passions, nor ideas formed by the imagination, exist without the mind, is what everybody will allow. And to me it is no less evident that the various sensations, or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them.—I think an intuitive knowledge may be obtained of this by any one that shall attend to what is meant by the term *exist,* when applied to sensible things. The table I write on I say exists, that is, I see and feel it; and if I were out of my study I should say it existed—meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There was an odor, that is, it was smelt; there was a sound, that is, it was heard; a color or figure, and it was perceived by sight or touch. This is all that I can understand by these and the like expressions. For as to what is said of the absolute existence of unthinking things without any relation to their being perceived, that

is to me perfectly unintelligible. Their *esse* is *percipi*, nor is it possible they should have any existence out of the minds or thinking things which perceive them.

4. It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word all sensible objects, have an existence, natural or real, distinct from their being perceived by the understanding. But, with how great an assurance and acquiescence soever this principle may be entertained in the world, yet whoever shall find in his heart to call it in question may, if I mistake not, perceive it to involve a manifest contradiction. For, what are the fore-mentioned objects but the things we perceive by sense? and what do we perceive besides our own ideas or sensations? and is it not plainly repugnant that any one of these, or any combination of them, should exist unperceived?

6. Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz., that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence without a mind, that their *being* is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind or that of any other created spirit, they must either have no existence at all, or else subsist in the mind of some Eternal Spirit—it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit. To be convinced of which, the reader need only reflect, and try to separate in his own thoughts the *being* of a sensible thing from its *being perceived.*

7. From what has been said it is evident there is not any other Substance than *Spirit*, or that which perceives. But, for the fuller demonstration of this point, let it be

considered the sensible qualities are color, figure, motion, smell, taste, etc., *i. e.*, the ideas perceived by sense. Now, for an idea to exist in an unperceiving thing is a manifest contradiction, for to have an idea is all one as to perceive; that therefore wherein color, figure, etc., exist must perceive them; hence it is clear there can be no unthinking substance or *substratum* of those ideas.

8. But, say you, though the ideas themselves do not exist without the mind, yet there may be things like them, whereof they are copies or resemblances, which things exist without the mind in an unthinking substance. I answer, an idea can be like nothing but an idea; a color or figure can be like nothing but another color or figure. If we look but never so little into our own thoughts, we shall find it impossible for us to conceive a likeness except only between our ideas. Again, I ask whether those supposed *originals* or external things, of which our ideas are the pictures or representations, be themselves perceivable or no? If they are, then *they* are ideas and we have gained our point; but if you say they are not, I appeal to any one whether it be sense to assert a color is like something which is invisible; hard or soft, like something which is intangible; and so of the rest.

9. Some there are who make a distinction betwixt *primary* and *secondary* qualities. By the former they mean extension, figure, motion, rest, solidity or impenetrability, and number; by the latter they denote all other sensible qualities, as colors, sounds, tastes, and so forth. The ideas we have of these they acknowledge not to be the resemblances of anything existing without the mind, or unperceived, but they will have our ideas of the primary qualities to be patterns or images of things which exist without the mind, in an unthinking substance which they call *Matter*. By Matter, therefore, we are to understand an inert, senseless substance, in which extension, figure, and

motion do actually subsist. But it is evident, from what we have already shewn, that extension, figure, and motion are only ideas existing in the mind, and that an idea can be like nothing but another idea, and that consequently neither they nor their archetypes can exist in an unperceiving substance. Hence, it is plain that the very notion of what is called *Matter* or *corporeal substance,* involves a contradiction in it.

10. They who assert that figure, motion, and the rest of the primary or original qualities do exist without the mind in unthinking substances, do at the same time acknowledge that colors, sounds, heat, cold, and such like secondary qualities, do not—which they tell us are sensations existing in the mind alone, that depend on and are occasioned by the different size, texture, and motion of the minute particles of matter. This they take for an undoubted truth, which they can demonstrate beyond all exception. Now, if it be certain that those original qualities are inseparably united with the other sensible qualities, and not, even in thought, capable of being abstracted from them, it plainly follows that they exist only in the mind. But I desire any one to reflect and try whether he can, by any abstraction of thought, conceive the extension and motion of a body without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some color or other sensible quality which is acknowledged to exist only in the mind. In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable. Where therefore the other sensible qualities are, there must these be also, to wit, in the mind and nowhere else.

11. Again, *great* and *small, swift* and *slow,* are allowed to exist nowhere without the mind, being entirely relative, and changing as the frame or position of the organs of

sense varies. The extension therefore which exists without the mind is neither great nor small, the motion neither swift nor slow, that is, they are nothing at all. But, say you, they are extension in general, and motion in general: thus we see how much the tenet of extended movable substances existing without the mind depends on the strange doctrine of *abstract ideas.* And here I cannot but remark how nearly the vague and indeterminate description of Matter or corporeal substance, which the modern philosophers are run into by their own principles, resembles that antiquated and so much ridiculed notion of *materia prima,* to be met with in Aristotle and his followers. Without extension solidity cannot be conceived; since therefore it has been shewn that extension exists not in an unthinking substance, the same must also be true of solidity.

12. That *number* is entirely the creature of the mind, even though the other qualities be allowed to exist without, will be evident to whoever considers that the same thing bears a different denomination of number as the mind views it with different respects. Thus, the same extension is one, or three, or thirty-six, according as the mind considers it with reference to a yard, a foot, or an inch. Number is so visibly relative, and dependent on men's understanding, that it is strange to think how any one should give it an absolute existence without the mind. We say one book, one page, one line, etc.; all these are equally units, though some contain several of the others. And in each instance, it is plain, the unit relates to some particular combination of ideas arbitrarily put together by the mind.

13. Unity I know some will have to be a simple or uncompounded idea, accompanying all other ideas into the mind. That I have any such idea answering the word *unity* I do not find; and if I had, methinks I could not miss finding it: on the contrary, it should be the most familiar to my understanding, since it is said to accompany

all other ideas, and to be perceived by all the ways of sensation and reflexion. To say no more, it is an *abstract idea.*

14. I shall farther add, that, after the same manner as modern philosophers prove certain sensible qualities to have no existence in Matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever. Thus, for instance, it is said that heat and cold are affections only of the mind, and not at all patterns of real beings, existing in the corporeal substances which excite them, for that the same body which appears cold to one hand seems warm to another. Now, why may we not as well argue that figure and extension are not patterns or resemblances of qualities existing in Matter, because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot therefore be the images of anything settled and determinate without the mind? Again, it is proved that sweetness is not really in the sapid thing, because the thing remaining unaltered the sweetness is changed into bitter, as in case of a fever or otherwise vitiated palate. Is it not as reasonable to say that motion is not without the mind, since if the succession of ideas in the mind become swifter, the motion, it is acknowledged, shall appear slower without any alteration in any external object?

15. In short, let any one consider those arguments which are thought manifestly to prove that colors and taste exist only in the mind, and he shall find they may with equal force be brought to prove the same thing of extension, figure, and motion. Though it must be confessed this method of arguing does not so much prove that there is no extension or color in an outward object, as that we do not know by sense which is the true extension or color of the object. But the arguments foregoing plainly shew it to be impossible that any color or extension at all, or

other sensible quality whatsoever, should exist in an unthinking subject without the mind, or in truth, that there should be any such thing as an outward object.

2. The Monadology

The essential features of the theory of Leibniz are contained in the following from the *Monadology:*[2]

1. The Monad, of which we shall here speak, is merely a simple substance entering into those which are compound; simple, that is to say, without parts.

2. And there must be simple substances, since there are compounds; for the compound is only a collection or aggregate of simples.

3. Where there are no parts, neither extension, nor figure, nor divisibility is possible; and these Monads are the veritable Atoms of Nature—in one word, the Elements of things.

4. There is thus no danger of dissolution, and there is no conceivable way in which a simple substance can perish naturally.

5. For the same reason, there is no way in which a simple substance can begin naturally, since it could not be formed by composition.

6. Therefore we may say that the Monads can neither begin nor end in any other way than all at once; that is to say, they cannot begin except by creation, nor end except by annihilation; whereas that which is compounded, begins and ends by parts.

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[2] Leibniz, *The Monadology;* translated by F. H. Hedge, *Journal of Speculative Philosophy,* Vol. I (1867).

Gottfried Wilhelm von Leibniz (1646–1716) was a native of Leipzig, studied there and at Jena and Altdorf, entered diplomatic service, traveled to Paris, London and the Netherlands. He was one of the most learned men of his day. His name is connected with the discovery of Integral Calculus in mathematics. His *Monadology* was published in 1714.

7. There is also no intelligible way in which a Monad can be altered or changed in its interior by any other creature, since it would be impossible to transpose anything in it, or conceive in it any internal movement—any movement excited, directed, augmented or diminished within, such as may take place in compound bodies, where there is change of parts. The Monads have no windows through which anything can enter or go forth. It would be impossible for any accidents to detach themselves and go forth from the substances, as did formerly the Sensible Species of the Schoolmen. Accordingly, neither substance nor accident can enter a Monad from without.

8. Nevertheless Monads must have qualities—otherwise they would not even be entities; and if simple substances did not differ in their qualities, there would be no means by which we could become aware of the changes of things, since all that is in compound bodies is derived from simple ingredients, and Monads, being without qualities, would be indistinguishable one from another, seeing also they do not differ in quantity. Consequently, a *plenum* being supposed, each place could in any movement receive only the just equivalent of what it had had before, and one state of things would be indistinguishable from another.

9. Moreover, each Monad must differ from every other, for there are never two beings in nature perfectly alike, and in which it is impossible to find an internal difference, or one founded on some intrinsic denomination.

10. I take it for granted, furthermore, that every created being is subject to change—consequently the created Monad; and likewise that this change is continual in each.

11. It follows, from what we have now said, that the natural changes of Monads proceed from an internal principle, since no external cause can influence the interior.

12. But, besides the principle of change, there must also

be a detail of changes, embracing, so to speak, the specification and the variety of the simple substances.

13. This detail must involve multitude in unity or in simplicity; for as all natural changes proceed by degrees, something changes and something remains, and consequently there must be in the simple substance a plurality of affections and relations, although there are no parts.

14. This shifting state, which involves and represents multitude in unity, or in the simple substance, is nothing else than what we call Perception, which must be carefully distinguished from *apperception*, or consciousness, as will appear in the sequel. Here it is that the Cartesians have especially failed, making no account of those perceptions of which we are not conscious. It is this that has led them to suppose that spirits are the only Monads, and that there are no souls of brutes or other Entelechies. It is owing to this that they have vulgarly confounded protracted torpor with actual death, and have fallen in with the scholastic prejudice, which believes in souls entirely separate. Hence, also, ill-affected minds have been confirmed in the opinion that the soul is mortal.

15. The action of the internal principle which causes the change, or the passage from one perception to another, may be called Appetition. It is true, the desire cannot always completely attain to every perception to which it tends, but it always attains to something thereof, and arrives at new perceptions.

17. Besides, it must be confessed that Perception and its consequences are inexplicable by mechanical causes—that is to say, by figures and motions. If we imagine a machine so constructed as to produce thought, sensation, perception, we may conceive it as magnified—the same proportions being preserved—to such an extent that one might enter it like a mill. This being supposed, we should find in it on inspection only pieces which impel each other,

but nothing which can explain a perception. It is in the simple substance, therefore—not in the compound, or in machinery—that we must look for that phenomenon; and in the simple substance we find nothing else—nothing, that is, but perceptions and their changes. Therein also, and therein only, consist all the internal actions of simple substances.

18. We might give the name of Entelechies to all simple substances or created Monads, inasmuch as there is in them a certain completeness (perfection), (ἔχουσι τὸ ἐντελές). There is a sufficiency (αὐτάρκεια) which makes them the sources of their own internal actions, and, as it were, incorporeal automata.

19. If we choose to give the name of soul to all that has perceptions and desires, in the general sense which I have just indicated, all simple substances or created Monads may be called souls. But as sentiment is something more than simple perception, I am willing that the general name of Monads or Entelechies shall suffice for those simple substances which have nothing but perceptions, and that the term souls shall be confined to those whose perceptions are more distinct, and accompanied by memory.

20. For we experience in ourselves a state in which we remember nothing, and have no distinct perception, as when we are in a swoon or in a profound and dreamless sleep. In this state the soul does not differ sensibly from a simple Monad; but since this state is not permanent, and since the soul delivers herself from it, she is something more.

21. And it does not by any means follow, in that case, that the simple substance is without perception: that, indeed, is impossible, for the reasons given above; for it cannot perish, neither can it subsist without affection of some kind, which is nothing else than its perception. But where there is a great number of minute perceptions, and

where nothing is distinct, one is stunned, as when we turn round and round in continual succession in the same direction; whence arises a vertigo, which may cause us to faint, and which prevents us from distinguishing anything. And possibly death may produce this state for a time in animals.

22. And as every present condition of a simple substance is a natural consequence of its antecedent condition, so its present is big with its future.

23. Then, as on waking from a state of stupor, we become conscious of our perceptions, we must have had perceptions, although unconscious of them, immediately before awaking. For each perception can have no other natural origin but an antecedent perception, as every motion must be derived from one which preceded it.

24. Thus it appears that if there were no distinction—no relief, so to speak—no enhanced flavor in our perceptions, we should continue forever in a state of stupor; and this is the condition of the naked Monad.

25. And so we see that nature has given to animals enhanced perceptions, by the care which she has taken to furnish them with organs which collect many rays of light and many undulations of air, increasing their efficacy by their union. There is something approaching to this in odor, in taste, in touch, and perhaps in a multitude of other senses of which we have no knowledge. I shall presently explain how that which passes in the soul represents that which takes place in the organs.

26. Memory gives to the soul a kind of consecutive action which imitates reason, but must be distinguished from it. We observe that animals, having a perception of something which strikes them, and of which they have previously had a similar perception, expect, through the representation of their memory, the recurrence of that which was associated with it in their previous perception, and incline

to the same feelings which they then had. For example, when we show dogs the cane, they remember the pain which it caused them, and whine and run.

27. And the lively imagination, which strikes and excites them, arises from the magnitude or the multitude of their previous perceptions. For often a powerful impression produces suddenly the effect of long habit, or of moderate perceptions often repeated.

28. In men as in brutes, the consecutiveness of their perceptions is due to the principle of memory—like empirics in medicine, who have only practice without theory. And we are mere empirics in three-fourths of our acts. For example, when we expect that the sun will rise to-morrow, we judge so empirically, because it has always risen hitherto. Only the astronomer judges by act of reason.

29. But the cognition of necessary and eternal truths is that which distinguishes us from mere animals. It is this which gives us Reason and Science, and raises us to the knowledge of ourselves and of God; and it is this in us which we call a reasonable soul or spirit.

30. It is also by the cognition of necessary truths, and by their abstractions, that we rise to acts of reflection, which give us the idea of that which calls itself "I," and which leads us to consider that this or that is in us. And thus, while thinking of ourselves, we think of Being, of substance, simple or compound, of the immaterial, and of God himself. We conceive that that which in us is limited, is in him without limit. And these reflective acts furnish the principal objects of our reasonings.

38. And thus the final reason of things, must be found in a necessary Substance, in which the detail of changes exists eminently as their source. And this is that which we call God.

39. Now this Substance being a sufficient reason of all

this detail, which also is everywhere linked together, *there is but one God, and this God suffices.*

40. We may also conclude that this supreme Substance, which is Only, Universal, and Necessary—having nothing outside of it which is independent of it, and being a simple sequence of possible beings—must be incapable of limits, and must contain as much of reality as is possible.

41. Whence it follows that God is perfect, perfection being nothing but the magnitude of positive reality taken exactly, setting aside the limits or bounds in that which is limited. And there, where there are no bounds, that is to say, in God, perfection is absolutely infinite.

42. It follows also that the creatures have their perfections from the influence of God, but they have their imperfections from their proper nature, incapable of existing without bounds; for it is by this that they are distinguished from God.

43. It is true, moreover, that God is not only the source of existences, but also of essences, so far as real, or of that which is real in the possible; because the divine understanding is the region of eternal truths, or of the ideas on which they depend, and without Him there would be nothing real in the possibilities and not only nothing existing, but also nothing possible.

44. At the same time, if there be a reality in the essences or possibilities, or in the eternal truths, this reality must be founded in something existing and actual, consequently in the existence of the necessary Being, in whom essence includes existence, or with whom it is sufficient to be possible in order to be actual.

45. Thus God alone (or the necessary Being) possesses this privilege, that he must exist, if possible; and since nothing can hinder the possibility of that which includes no bounds, no negation, and consequently no contradiction, that alone is sufficient to establish the existence of God

a priori. We have likewise proved it by the reality of eternal truths. But we have also just proved it *a posteriori* by showing that, since contingent beings exist, they can have their ultimate and sufficient reason only in some necessary Being, who contains the reason of his existence in himself.

3. Primacy of the Will in Philosophy

Ethical voluntaristic romanticism is given typical expression in the following from Fichte: [3]

This, then, is my whole sublime vocation, my true nature. I am a member of two orders:—the one purely spiritual, in which I rule by my will alone; the other sensuous, in which I operate by my deed. The whole end of reason is pure activity, absolutely by itself alone, having no need of any instrument out of itself—independence of everything which is not reason—absolute freedom. The will is the living principle of reason—is itself reason, when purely and simply apprehended; that reason is active by itself alone, means, that pure will, merely as such, lives and rules. It is only the Infinite Reason that lives immediately and wholly in this purely spiritual order. The finite reason —which does not of itself constitute the world of reason, but is only one of its members—lives necessarily at the same time in a sensuous order; that is to say, in one which presents to it another object, beyond a purely spiritual activity:—a material object, to be promoted by instruments and powers which indeed stand under the immediate

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[3] Fichte, J. G., *The Vocation of Man*, translated by Wm. Smith, edition of 1873, from Sections III and IV, pp. 350–353.

Johann Gottlieb Fichte (1762–1814), was Professor of Philosophy at Jena, Erlangen, and Berlin. He was a student of Kantian philosophy but developed an ethical idealism of his own. He was a vigorous personality, known for his addresses to the German Nation in 1807–1808, as well as for his philosophical activities. *The Vocation of Man* was first published at Berlin in 1800.

dominion of the will, but whose activity is also conditioned by their own natural laws. Yet as surely as reason is reason, must the will operate absolutely by itself, and independently of the natural laws by which the material action is determined;—and hence the sensuous life of every finite being points towards a higher, into which the will, by itself alone, may open the way, and of which it may acquire possession—a possesion which indeed we must again sensuously conceive of as a state, and not as a mere will.

These two orders—the purely spiritual and the sensuous, the latter consisting possibly of an innumerable series of particular lives—have existed since the first moment of the development of an active reason within me, and still proceed parallel to each other. The latter order is only a phenomenon for myself, and for those with whom I am associated in this life; the former alone gives it significance, purpose, and value. I *am* immortal, imperishable, eternal, as soon as I form the resolution to obey the laws of reason; I do not need to *become* so. The super-sensual world is no future world; it is now present; it can at no point of finite existence be more present than at another; not more present after an existence of myriads of lives than at this moment. My sensuous existence may, in future, assume other forms, but these are just as little the true life, as its present form. By that resolution I lay hold on eternity, and cast off this earthly life and all other forms of sensuous life which may yet lie before me in futurity, and place myself far above them. I become the sole source of my own being and its phenomena, and, henceforth, unconditioned by anything without me, I have life in myself. My will, which is directed by no foreign agency in the order of the super-sensual world, but by myself alone, is this source of true life, and of eternity.

It is my will alone which is this source of true life, and of eternity;—only by recognizing this will as the peculiar

seat of moral goodness, and by actually raising it thereto, do I obtain the assurance and the possession of that supersensual world.

Without regard to any conceivable or visible object, without inquiry as to whether my will may be followed by any result other than the mere volition—I must will in accordance with the moral law. My will stands alone, apart from all that is not itself, and is its own world merely by itself and for itself; not only as being itself an absolutely *first*, primary and original power, before which there is no preceding influence by which it may be governed, but also as being followed by no conceivable or comprehensible *second* step in the series, coming after it, by which its activity may be brought under the dominion of a foreign law. Did there proceed from it any second, and from this again a third result, and so forth, in any conceivable sensuous world opposed to the spiritual world, then would its strength be broken by the resistance it would encounter from the independent elements of such a world which it would set in motion; the mode of its activity would no longer exactly correspond to the purpose expressed in the volition; and the will would no longer remain free, but be partly limited by the peculiar laws of its heterogeneous sphere of action. And thus must I actually regard the will in the present sensuous world, the only one known to me. I am indeed compelled to believe, and consequently to act as if I thought, that by my mere volition, my tongue, my hand, or my foot, might be set in motion; but how a mere aspiration, an impress of intelligence upon itself, such as will is, can be the principle of motion to a heavy material mass—this I not only find it impossible to conceive, but the mere assertion is, before the tribunal of the understanding, a palpable absurdity;—here the movement of matter even in myself can be explained only by the internal forces of matter itself.

Such a view of my will as I have taken, can, however, be attained only through an intimate conviction that it is not merely the highest active principle for this world—which it certainly might be, without having freedom in itself, by the mere influence of the system of the universe, perchance, as we must conceive of a formative power in Nature—but that it absolutely disregards all earthly objects, and generally all objects lying out of itself, and recognizes itself, for its own sake, as its own ultimate end. But by such a view of my will I am at once directed to a super-sensual order of things, in which the will, by itself alone and without any instrument lying out of itself, becomes an efficient cause in a sphere which, like itself, is purely spiritual, and is thoroughly accessible to it. That moral volition is demanded of us absolutely for its own sake alone—a truth which I discover only as a fact in my inward consciousness, and to the knowledge of which I cannot attain in any other way:—this was the first step of my thought. That this demand is reasonable, and the source and standard of all else that is reasonable; that it is not modelled upon any other thing whatever, but that all other things must, on the contrary, model themselves upon it—and be dependent upon it—a conviction which also I cannot arrive at from without, but can attain only by inward experience, by means of the unhesitating and immovable assent which I freely accord to this demand:—this was the second step of my thought. And from these two terms I have attained to faith in a super-sensual Eternal World. If I abandon the former, the latter falls to the ground. If it were true—as many say it is, assuming it without further proof as self-evident and extolling it as the highest summit of human wisdom—that all human virtue must have before it a certain definite external object, and that it must first be assured of the possibility of attaining this object, before it can act and before it can become

virtue; that, consequently, reason by no means contains within itself the principle and the standard of its own activity, but must receive this standard from without, through contemplation of an external world;—if this were true, then might the ultimate end of our existence be accomplished here below; human nature might be completely developed and exhausted by our earthly vocation, and we should have no rational ground for raising our thoughts above the present life.

4. The Objectivity of Thought

The following passage from one of Hegel's best-known and most influential works gives a summary in his own manner of the fundamental features of his doctrine of the objectivity of thought, of his metaphysical logic, or identification of the movement of thought with that of world history: [4]

Thoughts may under proper conditions be called objective; and among them are to be reckoned the forms which are treated in the first instance in the traditional logic; and which are usually regarded as merely forms of *conscious* thought. Logic therefore coincides with metaphysics as the science of things as grasped in thoughts adequate to the expression of their essence.

The relation of such forms as concept, judgment, and inference, to others such as causality, etc., can so be considered only when we come to it in our Logic. But so much is also to be noted in advance: that inasmuch as thought seeks to form a conception of things, this conception (and therewith also its most elemental forms, judgment and inference) can not consist of forms and relations which are foreign and alien to things. Reflection, it was said above, leads to the general aspect of things; but this itself

[4] Hegel, *Logic*, from §24; translated from the *Encyclopädie der Philosophischen Wissenschaften*, edition of 1832. First published at Heidelberg in 1817.

For note on life of Hegel see page 14.

is one phase of conception. The assertion that there is intelligence—Reason—in the world signifies the same thing as does the expression "Objective Thought." This latter expression, however, is inconvenient just because "thought" is too habitually used only for what belongs to mind, to consciousness, and "objective" used primarily for the non-mental.

Note 1. When one says that thought—objective thought—is the heart and core of the world it may seem as if consciousness is being imputed to the things of nature. We feel a reluctance to regard the inner activity of things as thought, since we say: Man is distinguished from nature by his ability to think. We should then have to speak of nature as the system of unconscious thought, as of an intelligence which, as Schelling says, is "petrified." Instead of using the expression "thought" it is therefore better, in order to avoid misunderstanding, to say "thought-forms." "The logical" in accordance with what has been said, is to be sought as a system of thought-forms in general in which the opposition of the subjective to the objective (in its usual interpretation) disappears. This interpretation of thought and of its forms is more exactly expressed when the ancients say: νοῦς rules the world; or when we say there is reason in the world, whereby we mean reason is the soul of the world, dwells in it, is its immanent principle, its own inmost nature, its universal essence. A more exact illustration is the fact that when we speak of a particular animal we say "it is an animal." "Animal" in general can not be pointed out, but in every case a particular only. "Animal" does not exist, but is the general nature of particular animals, and every existing animal is concrete, definite, particular. But to be an animal (the kind in general) belongs to the individual animal and constitutes its definite essence. If we take from a dog its being an animal it is impossible

to say what it is.. Things in general have a permanent, inner nature and an external existence. They live and die, arise and pass away; their essence, their universal aspect is the "kind," and this is not to be understood merely as a "common quality."

Thought, which determines the substance of external things, is also the universal substance of what is mental. In all human contemplation there is thinking. Thought is the universal in all perceptions, memories, and in absolutely every mental activity, in all volition, wishing, etc. All these are simply further specializations of thinking. When we understand thought in this way it appears in a different light from what it does when we merely say we have the capacity to think, among and alongside of other capacities such as sensation, perception, volition, and the like. If we regard thought as the truly universal in all nature and in all mind, it extends over all these and is the basis of all. To this interpretation of thought, in its objective significance (as νοῦς) we may add at once what thinking is in its subjective meaning. We say first of all "man thinks"—but at once we add that he perceives, wills, etc. Man is a thinker and is universal, but he is a thinker only in so far as the universal is the object of his consciousness. An animal is also potentially universal, but the universal is as such not the object of its consciousness, but the individual only. The animal sees a single thing, for instance its food, a man, etc. But all these remain for it merely single things. Similarly sensuous feeling always has to do only with single things (this pain, this agreeable flavor, etc.). Nature does not bring νοῦς to consciousness in them. Man alone becomes so "reduplicated" as to be universal *for* the universal. This is the case in the first instance when man knows himself as "I." When I say "I" I mean myself as this absolutely definite person. Yet in fact I say nothing especial about myself thereby. Every

one else is also an "I," and in designating myself as "I" I really mean myself, this individual, but I use a perfectly general expression. "I" signifies mere self-consciousness in which everything individual is negated and annulled, the ultimate, simple and pure level of consciousness. We may say, "I" and "Thought" are the same, or more exactly: "I" is Thought as Thinking. What I have in my consciousness is conscious object to me. "I" am this contentless receptacle for anything and everything, *for* which all things are and which lays up everything into itself. Every man is a whole world of ideas, which are buried in the "night" of the Self. So Self is the universal in which abstraction is made from everything particular, in which however everything is included. It is therefore not mere abstract universality, but universality which contains everything in it. In general we use "I" very carelessly; it is only philosophical reflection that makes it an object of attention. In the Self we have pure unmediated thought. An animal cannot say "I";—only man, because he is Thought. In the self is manifold internal and external content, and according as this content is constituted do we have the experience of sensation, perception, memory, etc. But accompanying everything is the Self, or in everything is thought. Man is therefore always thinking, even when he is only perceiving; when he considers anything he considers it as a universal. He attends to a particular thing, isolates it, thereby withdraws his attention from everything else, takes it as abstract and universal, even if only formally universal.

In the case of our ideas the twofold situation occurs: either the content is thought, but not the form, or contrariwise the form belongs to thought, but not the content. For instance, if I say "anger," "rose," "hope," these are all known to me by feeling, but I express this content in a general manner, in the form of thought. I have therein

omitted much that is particular, and given the content only as universal, but the content remains sensory. On the contrary when I have an idea of God the content is really a pure thought, but the form is sensuous, as I find it immediately within me. In ideas then the content is not merely sensuous, as in visual sensation, but either the content is sensuous and the form a matter of thought, or *vice versa.* In the former case the matter is given and the form belongs to thought, in the latter case thought is the source of the content, but through the form the content becomes a "given" one, that thereby comes to the mind from without.

Note 2. In logic we have to do with pure thought, or pure thought-forms. In thinking (in the usual sense) we present to ourselves something which is not merely pure thought, for one means thereby a thought whose content is an empirical one. In logic thoughts are viewed as having no content other than that which belongs to thought itself and which is produced only by it. Thus the thoughts are *pure* thoughts. So the mind is just pure mind, and therein free. For freedom is just this: in what is other than oneself still to find oneself, to depend upon oneself, to be self-determining. In all impulses I begin with something outside me, with something of such a kind that for me it is external. In such a situation we speak of dependence. Freedom exists only where there is no "other" for me, which is not myself. The natural man who is moved only by his impulses is not independent. However willful he is, still the content of his volition and of his opinions is not his own, and his freedom is only a formal one. When I think, I give up my subjective particularity, sink myself in the thing, let thought take its own course, and I think badly when I inject anything of my own.

If we, in accordance with what we have said, regard logic as the system of *pure* thought-forms, the other philosophical sciences, the philosophy of nature and philosophy

of mind alike appear as applied logic; for it is the animating soul of them. The interest of all other sciences then is merely to recognize logical forms in the products of nature and mind, products which are only special manifestations of the forms of pure thought. For example, if we take the syllogism (not in the meaning of the old formal logic, but in its true one), it is the law that the particular is the mean which unites the extremes—the universal and the singular. This form of the syllogism is a general form which all things have. All things are particulars, uniting themselves as universals to singulars. The impotence of nature carries with it the consequence that it does not express logical forms in purity. Such an impotent expression of the syllogism is, for example, the magnet, which in the middle, at its indifference point unites its poles, which here in spite of their difference are *one*. In physics one also learns the universal—essence; the difference is simply that the philosophy of nature brings to our consciousness the real forms of the notion in the things of nature.—Logic is then the animating spirit of all sciences. The thought-forms of logic are the pure spirits. They are the heart and core, yet at the same time what we constantly talk about, and which therefore appear to be something quite familiar. But what is thus familiar is usually the most unfamiliar. Thus, for example, "being" is a pure thought-form; but it never occurs to us to take "is" as the topic for our consideration. One usually believes that the Absolute must lie far away, but it is just the most immediately present, which we carry about with us constantly and use in thinking, even without explicit consciousness of it. In language preeminently are such thought-forms crystallized. And so the instruction in grammar which is imparted to children has this use: it unconsciously calls attention to distinctions in thought.

It is commonly said that logic has to do only with forms,

and must derive its content from some other source. Logical thoughts, nevertheless are not "only" something as over against all other content, but all other content is "only" something in contrast to them. They are the basis, implicit and explicit, of all.—A rather high level of culture is necessary for the directing of attention to such pure forms. The consideration of them in and for themselves has the wider meaning that we derive these forms from thought itself and out of their own inner nature determine whether they are true. We do not derive them from without and then define them or show their value and validity, judging them by the form they take in our consciousness. For if we were to set out from observation and experience and say, for instance: we are accustomed to use the term "force" in such and such cases, this kind of definition would be correct when it coincided with the phase of the object which is presented in our ordinary consciousness. However, in this way, a concept is not determined in and for itself, but in accordance with a certain presupposition, which presupposition is then the criterion, the standard of correctness. But we do not need to use such a standard; but to let the living forms themselves take their own course. The question of the truth of the forms of thought seems curious to the ordinary consciousness. For they appear to have truth only in their application to given objects, and accordingly there would be no meaning in inquiring about their truth without such application. But this is just the question which is now at issue. In connection with it one must know just what is to be understood as *truth*. Usually we call truth the agreement of an object with our idea. We have then as a presupposition an object to which our idea of it must conform.—In the philosophical sense, on the contrary, truth in general, abstractly expressed, means agreement of a content with itself. This is therefore a quite different interpretation of truth from

that previously mentioned. However, the deeper (philosophic) meaning of truth is found in part even in customary speech. Thus one speaks for instance of a *true* friend and understands thereby one whose actions conform to the conception of friendship; so also does one speak of a *true* work of art. Untrue means then the same as bad, inconsistent with itself. In this sense a bad state is an untrue state. And the bad and the false in general consist in the contradiction which exists between the form or concept and the existing content of an object. Of such a bad object we can form a correct idea but the content of such an idea is "untrue" internally. Of such "truths" which are at the same time falsities we may have many in our heads.—God alone is the true agreement of concept and reality. All finite things have a falsity about them; they have a concept and an existing content, but a content which does not conform to its concept. Therefore they must pass away, whereby the non-conformity of their concept and their existence is rendered manifest. An animal has its concept in its "kind" and the "kind" frees itself from singularity by death.

The consideration of truth in the sense here explained, agreement with oneself, constitutes the real interest of logic. In the ordinary consciousness the question of the truth of thought-forms does not occur at all. The business of logic can then be expressed also as follows: in it the forms of thought are considered, as to how far they are capable of containing the truth. The question then centers about this point: which are the forms of the infinite and which the forms of the finite? In the ordinary consciousness one raises no questions about finite thought-forms but lets them pass without challenge. But all error comes from thinking and acting in accordance with finite forms.

CHAPTER XIX

THE IDENTITY OR DOUBLE ASPECT THEORY

1. The Order of Ideas the Same as of Things

The theorem here given from Spinoza's *Ethics* is a classic expression of an older form of the doctrine, and one which has been very influential in the history of thought:[1]

PROPOSITION VII

The order and connection of ideas is the same as the order and connection of things.

DEMONSTRATION

This is evident from axiom 4, part 1.[2] For the idea of any thing that is caused depends upon the knowledge of the cause of which it is the effect.

COROLLARY

Hence it follows, that God's power of Thinking is equal to his power of actual doing. That is, whatever follows objectively from the infinite nature of God, follows in its entirety from the idea of God and in the same order and sequence in the mind of God.

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[1] Spinoza, B., *Ethics* (first published at Amsterdam, in 1677, after Spinoza's death); translated from the text of Van Vloten and Land, Part II, Proposition VII.

For note on Spinoza, see page 13.

[2] The knowledge of an effect depends upon, and involves, a knowledge of the cause.

SCHOLIUM

Here, before we proceed further, we must recall to mind what we showed above, namely, that whatever can be perceived by the infinite intellect as constituting the essence of substance belongs wholly to one substance only, and consequently that thinking substance and extended substance are one and the same substance, which is known now under the one, now under the other attribute. Thus also the mode of extension, and the idea of that mode are one and the same thing, manifested under two modes; which certain of the Hebrews seem to have seen hazily as it were, when they maintain that God, the intellect of God, and things thought by Him, are all one and the same. For example, a circle existing in nature, and the idea of a circle existing, which is also in God, are one and the same thing, being revealed through different attributes, and for this reason if we conceive nature under the attribute of extension or under the attribute of thought, or under any other, we shall find that one and the same order, or one and the same connection of causes—that is, the same things—follow in turn. And I had no other reason for saying that God is the cause of an idea, for example of a circle, in so far as He is a thinking thing only, and of a circle in so far as it is an extended thing, except that the formal existence of the idea of a circle can be perceived only through another mode of thinking as the proximate cause, and that again through another, and so to infinity; so that so long as things are considered as modes of thought we ought to account for the order of all nature, or the connection of causes, through the attribute of thought alone; and in so far as they are considered as modes of extension the order even of all nature ought to be accounted for through the attribute of extension alone; and I hold the same view regarding the other attributes.

Wherefore, of things as they are in themselves, God is the true cause, in so far as He is infinite in attributes; I can not explain this more clearly at present.

2. Psycho-physical Parallelism in Psychological Theory

The parallelistic doctrine has been employed to solve the mind-body problem. The manner in which it has been thus employed is well illustrated by the following passage from Stout's *Manual,* where after discussing the materialistic and interactionistic theories, he says: [3]

We now come to the third hypothesis. This differs both from the theory of interaction and from materialism, inasmuch as it separates the statement of facts from theoretical explanation. Its first problem is to state the facts without implying direct interaction between nervous and conscious change, and without implying that the one creates the other. The formula which it uses for this purpose is that of psycho-physical parallelism, which simply states that modifications of consciousness emerge contemporaneously with corresponding modifications of nervous process. The nervous changes are supposed to be parts of the total continuous process of the physical universe, so that science will require none but material conditions to explain them. On the other hand, there is causal connection within the process of consciousness itself, as such. This psychical causation runs parallel with the material, but is not itself material. When a bodily action, such as moving a finger, follows upon volition, it is the cortical process concomitant with the volition which sets the muscles in contraction and so produces the movement. When an external impression is followed by a sensation, what the external impression

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[3] Stout, G. F., *Manual of Psychology,* pp. 50–54 (Hinds, Noble and Eldredge, 1899); reprinted by permission.

G. F. Stout (1859–——), English psychologist and philosopher, is professor at the University of St. Andrews, Scotland, and editor of *Mind.*

produces is a cortical process, which is concomitant with but does not cause the sensation. The external impression may be regarded as if it were a cause of the sensation, inasmuch as it is a cause of the cortical process correlated with the sensation. Similarly, the volition may be regarded as if it were a cause of the movement, inasmuch as it is correlated with the cortical process which sets the appropriate muscles in contraction. This account of the matter covers the facts as they are known to us; but it is merely a way of formulating these facts; it is not an explanatory theory. On the contrary, if it is a true formulation of the facts it is evident that these facts do not contain their own explanation. If the concomitance of cortical and conscious process is regarded as an ultimate principle, it is simply a miracle. That the cortical process which sets in motion the muscles moving the finger should happen to be accompanied by the conscious volition to move the finger without causal connection between them, is in itself utterly unintelligible. If we are to find an explanation, we must frame some hypothesis to account for psycho-physical parallelism, and in so doing we are compelled to plunge into ontology.

§ 4. *Metaphysical Explanation of Psycho-physical Parallelism.* If the doctrine of psycho-physical parallelism is true, the reason of the connection between conscious process and the correlated nervous process is not to be found in the nervous and conscious processes themselves. Both must be regarded as belonging to a more comprehensive system of conditions; and it is within this system as a whole that the reason of their connection is to be sought. In particular, the individual consciousness, as we know it, must be regarded as a fragment of a wider whole, by which its origin and its changes are determined. As the brain forms only a fragmentary portion of the total system of material phenomena, so we must assume the stream of individual

consciousness to be in like manner part of an immaterial system. We must further assume that this immaterial system in its totality is related to the material world in its totality as the individual consciousness is related to nervous processes taking place in the cortex of the brain. Within the immaterial system the individual consciousness is a determining factor: within this system it acts and is acted on. But this interaction is virtually interaction between conscious process and the material world: for the total immaterial system to which the individual consciousness belongs is correlated with material phenomena in general, as the individual consciousness is correlated with nervous occurrences in the cortex. When a volition sets the finger moving, the volition acts within *its* own sphere of influence, and the corresponding cortical process acts within *its* own sphere of influence.

We have yet to consider the relation of the immaterial system as a whole to the material system as a whole. If this relation be regarded as one of mere parallelism or concomitance, the fundamental difficulty, so far from being removed, is aggravated. To obtain light on this ultimate question, we must take an entirely new point of departure. We must consider the problem of the ultimate nature of matter. To do so here at length is of course impossible; but we may say that the explanation of psycho-physical parallelism is ultimately based on an idealistic view of material phenomena. The sensible qualities of matter exist only for minds which have certain experiences in the way of sensation. The extension, configuration, and other qualities of material bodies all presuppose the existence of certain modes of conscious experience. In like manner, the ultimate constituents of matter as they are recognized by scientific theories are abstract constructions of the human mind. In general, all that makes matter material presupposes some consciousness which takes cognizance of it.

Matter, as perceived and conceived by common sense and science, is essentially a phenomenon; and *phenomenon* simply means *appearance* or *presentation.* There can be no appearance or presentation apart from a subject to which an object appears or is presented. Hence the nature of matter as known is constituted by its being known, or at least knowable. On the other hand, it is equally certain that the *existence* of what is known to us as matter does not depend on our knowledge of it. We do not make matter. Only its appearance as material phenomenon is dependent on us. Hence it follows that, so far as it exists independently of its presentation to a cognitive subject, it cannot have material properties, such as extension, hardness, color, weight, and the like. It is an agency which is an essential condition of material phenomenon, but is not itself a material phenomenon. Thus we are led by a quite different line of investigation to the same conclusion which was suggested by the relation of conscious process to nervous process. The world of material phenomena presupposes a system of immaterial agency. In this immaterial system the individual consciousness originates. To it, in some way, the sensational experiences are due which form the basis of our knowledge of the material world. It is on it the individual consciousness acts when it produces changes in the material world. All this is possible because the system of immaterial agency is identical with what we know as matter, in so far as matter exists independently of its possible presentation to a perceiving subject. This theory has been purposely stated in a vague form. There are varying views as to the nature of the system of immaterial agency. Some say that it is will, others that it is absolute thought, others that it is unknowable; in any case, the student should guard against the assumption that the immaterial system is a sort of repetition of the material system, involving the same sort of

interactions, and similar distinctions and relations of its parts. One thing seems clear—that we are nearer the truth in speaking of it as consciousness, than in speaking of it as matter.

CHAPTER XX

RECENT REALISM

1. Ideas as Things in Special Relations

This is a form which monistic theory has taken in recent years in the so-called Neo-realism. It is based upon the sort of argument exemplified by the following passage from the works of William James, in which his fundamental contention is the falsity of the dual construction of experience (idea and object) as commonly interpreted:[1]

Experience, I believe, has no such inner duplicity; and the separation of it into consciousness and content comes, not by way of subtraction, but by way of addition— the addition, to a given concrete piece of it, of other sets of experiences, in connection with which severally its use or function may be of two different kinds. The paint will also serve here as an illustration. In a pot in a paint shop, along with other paints, it serves in its entirety as so much saleable matter. Spread on a canvas, with other paints around it, it represents, on the contrary, a feature in a picture and performs a spiritual function. Just so, I maintain, does a given undivided portion of experience, taken in one context of associates, play the part of a

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[1] James, W., *Essays in Radical Empiricism*, from the essay "Does Consciousness Exist?" pp. 9–16 (Longmans, Green and Company, 1912); reprinted by permission of the publishers.

William James (1842–1910), American psychologist and philosopher, was connected with Harvard University from 1872 to 1910. He is known chiefly for his *Principles of Psychology*, lectures on *Pragmatism*, and his later writings which contributed much to the neo-realistic movement. Included in the last is the essay from which the present quotation is taken.

knower, of a state of mind, of "consciousness"; while in a different context the same undivided bit of experience plays the part of a thing known, of an objective "content." In a word, in one group it figures as a thought, in another group as a thing. And, since it can figure in both groups simultaneously we have every right to speak of it as subjective and objective both at once. The dualism connoted by such double-barrelled terms as "experience," "phenomenon," "datum," "*Vorfindung*"—terms which, in philosophy at any rate, tend more and more to replace the single-barrelled terms of "thought" and "thing"—that dualism, I say, is still preserved in this account, but reinterpreted, so that, instead of being mysterious and elusive, it becomes verifiable and concrete. It is an affair of relations, it falls outside, not inside, the single experience considered, and can always be particularized and defined.

The entering wedge for this more concrete way of understanding the dualism was fashioned by Locke when he made the word "idea" stand indifferently for thing and thought, and by Berkeley when he said that what common sense means by realities is exactly what the philosopher means by ideas. Neither Locke nor Berkeley thought his truth out into perfect clearness, but it seems to me that the conception I am defending does little more than consistently carry out the "pragmatic" method which they were the first to use.

If the reader will take his own experiences, he will see what I mean. Let him begin with a perceptual experience, the "presentation," so called, of a physical object, his actual field of vision, the room he sits in, with the book he is reading as its centre; and let him for the present treat this complex object in the common sense way as being "really" what it seems to be, a collection of physical things cut out from an environing world of other physical things with which these physical things have actual or potential

relations. Now at the same time it is just *those self-same things* which his mind, as we say, perceives; and the whole philosophy of perception from Democritus's time downwards has been just one long wrangle over the paradox that what is evidently one reality should be in two places at once, both in outer space and in a person's mind. "Representative" theories of perception avoid the logical paradox, but on the other hand they violate the reader's sense of life, which knows no intervening mental image but seems to see the room and the book immediately just as they physically exist.

The puzzle of how the one identical room can be in two places is at bottom just the puzzle of how one identical point can be on two lines. It can, if it be situated at their intersection; and similarly, if the "pure experience" of the room were a place of intersection of two processes, which connected it with different groups of associates respectively, it could be counted twice over, as belonging to either group, and spoken of loosely as existing in two places, although it would remain all the time a numerically single thing.

Well, the experience is a member of diverse processes that can be followed away from it along entirely different lines. The one self-identical thing has so many relations to the rest of experience that you can take it in disparate systems of association, and treat it as belonging with opposite contexts. In one of these contexts it is your "field of consciousness"; in another it is "the room in which you sit," and it enters both contexts in its wholeness, giving no pretext for being said to attach itself to consciousness by one of its parts or aspects, and to outer reality by another. What are the two processes, now, into which the room-experience simultaneously enters in this way?

One of them is the reader's personal biography, the other is the history of the house of which the room is a

part. The presentation, the experience, the *that* in short (for until we have decided *what* it is it must be a mere *that*) is the last term of a train of sensations, emotions, decisions, movements, classifications, expectations, etc., ending in the present, and the first term of a series of similar "inner" operations extending into the future, on the reader's part. On the other hand, the very same *that* is the *terminus ad quem* of a lot of previous physical operations, carpentering, papering, furnishing, warming, etc., and the *terminus a quo* of a lot of future ones, in which it will be concerned when undergoing the destiny of a physical room. The physical and the mental operations form curiously incompatible groups. As a room, the experience has occupied that spot and had that environment for thirty years. As your field of consciousness it may never have existed until now. As a room, attention will go on to discover endless new details in it. As your mental state merely, few new ones will emerge under attention's eye. As a room, it will take an earthquake, or a gang of men, and in any case a certain amount of time, to destroy it. As your subjective state, the closing of your eyes, or any instantaneous play of your fancy will suffice. In the real world fire will consume it. In your mind, you can let fire play over it without effect. As an outer object, you must pay so much a month to inhabit it. As an inner content, you may occupy it for any length of time rent-free. If, in short, you follow it in the mental direction, taking it along with events of personal biography solely, all sorts of things are true of it which are false, and false of it which are true if you treat it as a real thing experienced, follow it in the physical direction, and relate it to associates in the outer world.

III

So far, all seems plain sailing, but my thesis will probably grow less plausible to the reader when I pass from percepts to concepts, or from the case of things presented to that of things remote. I believe, nevertheless, that here also the same law holds good. If we take conceptional manifolds, or memories, or fancies, they also are in their first intention mere bits of pure experience, and, as such, are single *thats* which act in one context as objects, and in another context figure as mental states. By taking them in their first intention, I mean ignoring their relation to possible perceptual experiences with which they may be connected, which they may lead to and terminate in, and which then they may be supposed to "represent." Taking them in this way first, we confine the problem to a world merely "thought-of" and not directly felt or seen. This world, just like the world of percepts, comes to us at first as a chaos of experiences, but lines of order soon get traced. We find that any bit of it which we may cut out as an example is connected with distinct groups of associates, just as our perceptual experiences are, that these associates link themselves with it by different relations, and that one forms the inner history of a person, while the other acts as an impersonal "objective" world, either spatial and temporal, or else merely logical or mathematical, or otherwise "ideal."

2. The Stratified Character of Reality

This feature, of levels of reality, has been emphasized by several of the recent realists, and is presented in an interesting way in the following passage from an essay by Professor Alexander:[2]

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[2] Alexander, S., "Natural Piety," *The Hibbert Journal*, Vol. XX, No. 4, July, 1822, p. 613; used by permission.

Samuel Alexander (1859 —), English philosopher and educator,

Nature is "stratified," and if we apply to it our customary conceptions of growth and development, we can regard it as a geological formation with a history. But the comparison is still inadequate; for new geological strata are but fresh deposits laid down upon the subjacent ones, not drawing from them their new life. Nature is rather a history of organic growth of species, in which the new type of organism is the outgrowth of the older type, and continues the earlier life into a form at once more complex and more highly simplified. As there is in the animal-world or the plant-world a hierarchy of forms, so in nature there is a hierarchy of qualities which are characteristics of various levels of development. There are, if I may borrow a metaphor used by Mr. Sellars of Michigan in his recent book, (*Evolutionary Naturalism*), "critical points" in the unfolding of Nature when she gathers up her old resources for a new experiment and breeds a new quality of existence. The earliest of these qualities of being which is familiar to us is that of physical matter, whatever we are to suppose it is that materiality consists in. Other well-marked levels are those of chemical structure and behavior, and life, which is the quality of things which behave physiologically.

I am not concerned to offer a complete enumeration of these levels of existence with their distinguishing qualities. The three qualities mentioned are but a selection. Every attempt at completeness raises questions of difficulty. Certain, however, it is now that mere physical materiality is a highly developed stage, late in the history of the world: that there are forms of submaterial being, and the line between the submaterial and the material is not for me to draw. Neither is it for me to say whether electrons are the lowest existences in the scale. Again, beyond life, some

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have maintained that mind is itself a new quality which arises out of life, while others treat consciousness merely as a function of all life, and for them consciousness and life are one, and accordingly all the knowing on which we pride ourselves so much is in the end only a special form of vital behavior. There is another debatable question. To me, colors and sounds and tastes and all the sensible characters of material things appear to be resident in things themselves; and colored existence to be a critical point in nature. When a physical body is such that the light which it sends out to our eyes has a determinate wave-length, that body is red. To others, and they are the majority, the color depends upon the possession by the percipient of eyes. These questions I need not raise in this place because they take us away from the central theme into historic problems which have occupied physics and philosophy from the days of Galileo and before. There is still another matter I leave open. Life is without doubt such a critical point in nature. Are the various gradations of life, first of all the difference of plants and animals as a whole, and next the marked differences of kinds among animals and plants themselves, to be regarded likewise? The differences which part a humble amoeba or hydra from the monkey, or even from the lizard or crab, are vast. Are they critical differences? All I need answer is that if they are not, at least the outgrowth of the higher from the lower forms of life helps us mightily to understand the outgrowth at the critical point of the higher level of quality from the lower. Further, if it is right to treat colors as real qualities, not dependent for existence on the physiological organs; which are but instruments in that case for apprehending, not for creating them; if this is so, the different kinds of colors—red, green, and the rest—are comparable to the species of animals or plants, and if they do not mark a change of level they mark differences upon that

level. All these matters of debate I leave aside, in order to insist on the vital feature of Nature that she does exhibit critical changes of quality, which mark new syntheses, that we can but note. We may and must observe with care out of what previous conditions these new creations arise. We cannot tell why they should assume these qualities. We can but accept them as we find them, and this acceptance is natural piety.

These bodies with new qualities, these "creative syntheses," which arise at critical points from a lower level of existence, are therefore no mere mechanical resultants of their lower conditions. If they were they would have merely the quality of their antecedents or components, as the component pulls upon a body along the sides of a parallelogram are equivalent to a resultant pull along the diagonal. Even the chemical combination of sodium and sulphuric acid, though it leads to something new and its process is not purely mechanical, does but issue in a new chemical body, just as the pairing of two living beings may lead to a new variety, but still a variety of living being. They are, therefore, after the usage of the late George Henry Lewes, described as emergents by Mr. Lloyd Morgan, with whom I have for many years shared this conception of things, which he has expounded with a simplicity and lucidity beyond my powers in a chapter of his book, *Instinct and Experience*, and with particular force in the address with which he inaugurated the independent section of Psychology at the recent meeting of the British Association at Edinburgh (1921).

Without attempting to take in the whole field of nature, I will confine myself here to life, considered as an emergent from the realm of physico-chemical bodies. A living body is, according to this conception, a physico-chemical body of a certain degree and kind of complexity, whose actions may severally be viewed as physical or chemical, but taken

in their integration, or entirety (to borrow a word of Lord Haldane's), have the quality of life. Life is therefore resoluble without remainder into physico-chemical processes; but it cannot be treated as *merely* physico-chemical. Certain of its functions may be referred to physical or chemical laws, but it is not these separable processes which constitute life. Life exists only when we have that particular collocation of such physico-chemical actions which we know as living. It is the special coördination which conditions the appearance or creation of the new quality of life. We might therefore be disposed to describe the living body indifferently as being a physico-chemical body which is *also* vital, or as being vital and *also* physico-chemical. In reality only the second designation is satisfactory. The first would imply that a certain grouping of such processes remains no more than physical and chemical, that life is not something new but a name for this integration, whereas it is a new quality conditioned by and equivalent to the particular complexity of integration. Given life, we can hope to resolve it into its physico-chemical equivalent. We can even hope to reproduce partially or wholly by artificial means the existence of life. It is well known, for instance, that certain foams or emulsions or oil have exhibited streaming movements like those of living protoplasm. But life has been already attained, and it is our clue to the invention of the necessary machinery. Given merely physical and chemical processes, we can only generate life when we have hit upon the requisite form of integration. Thus life is *also* physico-chemical, because in its separable activities it is comparable with other physico-chemical processes. But it is not *merely* physico-chemical, because merely physico-chemical processes are not alive, and they do not give us life until the requisite complexity of integration is attained. So important is it to remember that besides elements there is the form of their combination,

and that the form is as much a reality as the elements and gives them their significance; that it is not the patches of color alone which make the picture, but their selection and arrangement which make the separate patches contribute to the expressiveness of the picture; that a melody is not merely the notes by which it is conveyed, but the choice and order which the musician has introduced into them; that in the choice and combination of the parts the whole receives a meaning which does not belong to the several components; and that while a combination of sounds is still a sound, and the blending of male and female elements in a human being is still human, there is still room at critical points for the combination to carry us into a new quality of being. Even where there is no such new quality of being, the change that is due to form may shadow forth these greater and more creative changes; as when, to revert to former illustrations, the choice of words generates the indescribable flavor of style, or, in music, to quote the often quoted words:

"Consider it well: each tone in our scale in itself is nought;
It is everywhere in the world—loud, soft, and all is said:
Give it to me to use! I mix it with two in my thought
And, there! ye have heard and seen: consider and bow the head!"

That attitude is an illustration of what I am calling natural piety.

It is here that we are brought face to face with the long-drawn dispute between the so-called mechanistic explanation of life and vitalism. The latest contribution to the controversy is to be found in the highly interesting work on "the mechanism of life," by Mr. Johnstone, the professor of Oceanography at Liverpool. I do not mention his work in order to discuss his own explanation of life. He distinguishes the vital and the material mechanism in this way. All material mechanisms expend a part of the energy

supplied to them not in doing work but in the form of heat which is no longer available for work; in the technical phrase they increase the sum of entropy or unavailable energy, and they represent a progression towards the condition of general dissipation of available energy. Living machines, on the contrary, delay or reverse the accumulation of entropy. It is beyond my competence to inquire into the correctness of this view. Rather I wish to direct your attention to the point that there is upon this doctrine such a "mechanism" of life; because it suggests that the sharp distinction of the mechanical from the vital is unfounded, and that life may be a mechanism and yet have, as I have said, a new quality (though this view I am not attributing to Mr. Johnstone himself), and that while there is no new entity life, there is a new quality life, with which certain combinations of matter may be endowed. Vitalism supposed that there was an actual vital force, non-physical, which interfered with and directed the physical behavior of the organism, and it has been reintroduced in our day by Mr. Hans Driesch under the guise of a presiding psychoid or entelechy, as he names it, a distinguishable principle, not resoluble into chemical or physical action. In this controversy a middle position is occupied by Mr. J. S. Haldane, who has called attention to a number of delicate adjustments performed by the organism which cannot be accounted for, he thinks, by the separate chemical processes of the body. Thus the respiratory actions under the guidance of the nervous center are so delicate that they preserve the pressure of carbonic acid in the air in the lungs and therefore in the blood-vessels, and restore it to the normal when the amount of it has been disturbed even in the slightest degree, as by taking deeper breath and so diluting the carbonic acid. The arterial blood has, as he otherwise puts it, a normal faint alkalinity, and if this is disturbed, however slightly, by defect of carbonic acid, the

pressure is restored. In the same way the blood has a normal salinity, which is kept constant in the face of the slightest changes by delicate reactions on the part of the kidneys. Mr. Haldane takes this delicacy of adjustment to mean that physiological action can only be understood by including in any function the organization of the whole creature. Here we might seem to have a matter upon which only a physiologist has the right to speak. Still, a mere philosopher may be allowed to consider the wider issue raised. If this concept of organization means only that vital action implies and is not rightly described without it, a philosopher must declare Mr. Haldane right. If he means that vital action precludes the resolution of life without remainder into chemical and physical action, he is open to the charge that, in his zeal for this new fact of life, he is forgetting that the whole make-up of the organism is itself, as Mr. Lloyd Morgan has pointed out, a factor in the chemical and physical processes in question. The moral which I draw from his work is not his own, but precisely the statement made at the beginning, that that organization which is alive is not merely physico-chemical, though completely resoluble into such terms, but has the new quality of life. No appeal is needed, so far as I can see, to a vital force or even an *élan vital.* It is enough to note the emergence of the quality, and try to describe what is involved in its conditions. That task will be, I imagine, difficult enough, and Mr. Johnstone's own account may be valued as an attempt towards performing it.

The emergence of life with this new collocation of conditions implies that life is continuous with chemical, physical, and mechanical action. To be more explicit, the living body is also physical and chemical. It surrenders no claim to be considered a part of the physical world. But the new quality of life which it possesses is neither chemical nor mechanical, but something new. Thus the parts of the liv-

ing body have color but life is not colored, and they are material but life itself is not material, but only the body which is alive is material. The lower conditions out of whose collocations life emerges supply a body as it were to a new soul. The specific characters which they possess are not continued into the new soul. The continuity which exists between life and the material does not mean that the material is carried over into life. There would not in that case be continuity between the living body as a new emergent and its predecessors; the living body would be nothing more than an elaborate material mechanism, which would illustrate material action, but could not claim a position of privilege. The characters which *are* continued from the lower level into life are not the specific qualities of the lower level; they are rather those characters which all existence shares in common, such as existence in time and space, intensity, capacity of affecting other existences, all which belong to life as much as to matter.

From this it will be clear that when we draw a sharp contrast between life and mechanism, as too often we do, we are guilty of exaggeration if not of confusion. It is more to the purpose to indicate their differences after we have assured ourselves of a fundamental continuity or resemblance. What is salient in mechanical bodies is their general uniformity of response, the routine character of their behavior. What is salient in life is its capacity of fine adjustment to varying conditions, a capacity such as no merely material body possesses, not even any machine made as yet by human design. This capacity of variation in its response may seem even to amount in certain cases to an originality which has led some to credit life with genuine freedom from determination by previous conditions, with indetermination, such as is supposed to appear in human beings as free will—not in the ordinary sense in which we are undoubtedly free, as directing ourselves con-

sciously to foreseen ends, but in the sense of making new departures without determining reasons. How, then, we may ask, if life is resoluble without remainder into mechanical, physical, and chemical elements, can a living body be other than the automaton which Descartes declared it to be? (Descartes, observe in passing, would, if I am right, have been justified, if he had only realized that an automaton of sufficient complexity would cease to be a mere automaton.) Now these questions are put because of confusing the determinate with the purely mechanical. All behavior, it is safe to assert, is determinate, and its fine capacity of variation and spontaneity are determined by its delicately complex organization. But not all determinate action is therefore mechanical. The mechanical is simple and its responses broadly constant; the vital is highly complex and its responses, though definite, may vary according to circumstances; and that is all. If one thing is appearing more clearly than another from recent science, it is that material action is not so much that from which vital action diverges, as a first approximation towards vital action. The idea of life tends in our day to be extended downwards towards more primitive kinds of existence. Not that material existence is to be regarded as a form of life, but that it exhibits features which correspond to life; so that the transition from matter to life is no longer the passage to something absolutely heterogeneous but the manifestation of a single principle operating under conditions of various complexity, and generating emergents with distinctive qualities, and yet retaining them all in one linked progression of affinity.

We are to combine in our thoughts this fundamental unity with the recognition of emergent qualities which can only be accepted but cannot be accounted for. One difficulty in the way of effecting this combination in our thought is the idea that if the world is a determinate

growth, each new creation determined by its predecessors on a lower level, the history of the world must be capable of prediction, according to the famous assertion of Laplace. But this conclusion does not follow. Laplace's calculator might foresee that at a certain point a certain complexity might arise, whose actions were capable of measurement and would be those of living things. He could never affirm that this form of action would have the quality of life, unless he lived to see. He might predict ethereal waves but could not predict them to be light; still less that a material body would be material or when touched by light would be red, or even merely look red to a living body with eyes. All known forms of action could be predicted in their measurable characters, but never in their emergent ones. Not even God, if we suppose a God presiding over the birth of the world, in accordance with the conception of the crudest theism, could predict what these emergent qualities would be; he could only accept them like ourselves when the world he made had originated them.

3. A Theory of Mind

An important Neo-realistic theory of mind is that of Bertrand Russell the keynote of which is struck in the following passages: [3]

This book has grown out of an attempt to harmonize two different tendencies, one in psychology, the other in physics, with both of which I find myself in sympathy, although at first sight they might seem inconsistent. On the one hand, many psychologists, especially those of the behaviorist school, tend to adopt what is essentially a materialistic position, as a matter of method if not of metaphysics. They

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[3] Russell, B., *The Analysis of Mind,* pp. 5 and 6 (George Allen & Unwin, Ltd., London); reprinted by permission of the publishers.

Bertrand A. W. Russell (1872 —) is an English philosopher and mathematician; for some time fellow and lecturer at Trinity College, Cambridge, and is especially known for his work in symbolic logic.

make psychology increasingly dependent on physiology and external observation, and tend to think of matter as something much more solid and indubitable than mind. Meanwhile the physicists, especially Einstein and other exponents of the theory of relativity, have been making "matter" less and less material. Their world consists of "events," from which "matter" is derived by a logical construction. Whoever reads, for example, Professor Eddington's *Space, Time and Gravitation* (Cambridge University Press, 1920), will see that an old-fashioned materialism can receive no support from modern physics. I think that what has permanent value in the outlook of the behaviorists is the feeling that physics is the most fundamental science at present in existence. But this position cannot be called materialistic, if, as seems to be the case, physics does not assume the existence of matter.

The view that seems to me to reconcile the materialistic tendency of psychology with the anti-materialistic tendency of physics is the view of William James and the American new realists, according to which the "stuff" of the world is neither mental nor material, but a "neutral stuff," out of which both are constructed. I have endeavored in this work to develop this view in some detail as regards the phenomena with which psychology is concerned.

There[4] is one element which *seems* obviously in common among the different ways of being conscious, and that is, that they are all directed to *objects*. We are conscious "of" something. The consciousness, it seems, is one thing, and that of which we are conscious is another thing. Unless we are to acquiesce in the view that we can never be conscious of anything outside our own minds, we must say that the object of consciousness need not be mental, though the consciousness must be. (I am speaking within the cir-

[4] *Ibid.*, p. 13.

cle of conventional doctrines, not expressing my own beliefs.) This direction towards an object is commonly regarded as typical of every form of cognition, and sometimes of mental life altogether. We may distinguish two different tendencies in traditional psychology. There are those who take mental phenomena naïvely, just as they would physical phenomena. This school of psychologists tends not to emphasize the object. On the other hand, there are those whose primary interest is in the apparent fact that we have *knowledge*, that there is a world surrounding us of which we are aware. These men are interested in the mind because of its relation to the world, because knowledge, if it is a fact, is a very mysterious one. Their interest in psychology is naturally centered in the relation of consciousness to its object, a problem which, properly, belongs rather to theory of knowledge. We may take as one of the best and most typical representatives of this school the Austrian psychologist Brentano, whose *Psychology from the Empirical Standpoint*, though published in 1874, is still influential, and was the starting-point of a great deal of interesting work. He says (p. 115):

"Every psychical phenomenon is characterized by what the scholastics of the Middle Ages called the intentional (also the mental) inexistence of an object, and what we, although with not quite unambiguous expressions, would call relation to a content, direction towards an object (which is not here to be understood as a reality), or immanent objectivity. Each contains something in itself as an object, though not each in the same way. In presentation something is presented, in judgment something is acknowledged or rejected, in love something is loved, in hatred hated, in desire desired, and so on.

"This intentional inexistence is exclusively peculiar to psychical phenomena. No physical phenomenon shows anything similar. And so we can define psychical phe-

nomena by saying that they are phenomena which intentionally contain an object in themselves."

The view here expressed, that relation to an object is an ultimate irreducible characteristic of mental phenomena, is one which I shall be concerned to combat. Like Brentano, I am interested in psychology, not so much for its own sake, as for the light that it may throw on the problem of knowledge. Until very lately I believed, as he did, that mental phenomena have essential reference to objects, except possibly in the case of pleasure and pain. Now I no longer believe this, even in the case of knowledge. I shall try to make my reasons for this rejection clear as we proceed. It must be evident at first glance that the analysis of knowledge is rendered more difficult by the rejection; but the apparent simplicity of Brentano's view of knowledge will be found, if I am not mistaken, incapable of maintaining itself either against an analytic scrutiny or against a host of facts in psycho-analysis and animal psychology. I do not wish to minimize the problems. I will merely observe in mitigation of our prospective labors, that thinking, however it is to be analyzed, is in itself a delightful occupation, and that there is no enemy to thinking so deadly as a false simplicity. Traveling, whether in the mental or the physical world, is a joy, and it is good to know that, in the mental world at least, there are vast countries still very imperfectly explored.

The view expressed by Brentano has been held very generally, and developed by many writers. Among these we may take as an example his Austrian successor Meinong. According to him there are three elements involved in the thought of an object. These three he calls the act, the content and the object. The act is the same in any two cases of the same kind of consciousness; for instance, if I think of Smith or think of Brown, the act of thinking, in itself, is exactly similar on both occasions. But the con-

tent of my thought, the particular event that is happening in my mind, is different when I think of Smith and when I think of Brown. The content, Meinong argues, must not be confounded with the object, since the content must exist in my mind at the moment when I have the thought, whereas the object need not do so. The object may be something past or future; it may be physical, not mental; it may be something abstract, like equality for example; it may be something imaginary, like a golden mountain; or it may even be something self-contradictory, like a round square. But in all these cases, so he contends, the content exists when the thought exists, and is what distinguishes it, as an occurrence, from other thoughts.

To make this theory concrete, let us suppose that you are thinking of St. Paul's. Then, according to Meinong, we have to distinguish three elements which are necessarily combined in constituting the one thought. First, there is the act of thinking, which would be just the same whatever you were thinking about. Then there is what makes the character of the thought as contrasted with other thoughts; this is the content. And finally there is St. Paul's, which is the object of your thought. There must be a difference between the content of a thought and what it is about, since the thought is here and now, whereas what it is about may not be; hence it is clear that the thought is not identical with St. Paul's. This seems to show that we must distinguish between content and object. But if Meinong is right, there can be no thought without an object: the connection of the two is essential. The object might exist without the thought, but not the thought without the object: the three elements of act, content and object are all required to constitute the one single occurrence called "thinking of St. Paul's."

The above analysis of a thought, though I believe it to be mistaken, is very useful as affording a schema in terms

of which other theories can be stated. In the remainder of the present lecture I shall state in outline the view which I advocate, and show how various other views out of which mine has grown, result from modifications of the three-fold analysis into act, content and object.

The first criticism I have to make is that the *act* seems unnecessary and fictitious. The occurrence of the content of a thought constitutes the occurrence of the thought. Empirically, I cannot discover anything corresponding to the supposed act; and theoretically I cannot see that it is indispensable. We say: "*I* think so-and-so," and this word "I" suggests that thinking is the act of a person. Meinong's "act" is the ghost of the subject, or what once was the full-blooded soul. It is supposed that thoughts cannot just come and go, but need a person to think them. Now, of course it is true that thoughts can be collected into bundles, so that one bundle is my thoughts, another is your thoughts and a third is the thoughts of Mr. Jones. But I think the person is not an ingredient in the single thought: he is rather constituted by relations of the thoughts to each other and to the body. This is a large question, which need not, in its entirety, concern us at present. All that I am concerned with for the moment is that the grammatical forms "I think," "you think," and "Mr. Jones thinks," are misleading if regarded as indicating an analysis of a single thought. It would be better to say "it thinks in me," like "it rains here"; or better still, "there is a thought in me." This is simply on the ground that what Meinong calls the act in thinking is not empirically discoverable, or logically deducible from what we can observe.

The next point of criticism concerns the relation of content and object. The reference of thoughts to objects is not, I believe, the simple direct essential thing that Brentano and Meinong represent it as being. It seems to me

to be derivative, and to consist largely in *beliefs:* beliefs that what constitutes the thought is connected with various other elements which together make up the object. You have, say, an image of St. Paul's, or merely the word "St. Paul's" in your head. You believe, however vaguely and dimly, that this is connected with what you would see if you went to St. Paul's, or what you would feel if you touched its walls; it is further connected with what other people see and feel, with services and the Dean and Chapter and Sir Christopher Wren. These things are not mere thoughts of yours, but your thought stands in a relation to them of which you are more or less aware. The awareness of this relation is a further thought, and constitutes your feeling that the original thought had an "object." But in pure imagination you can get very similar thoughts without these accompanying beliefs; and in this case your thoughts do not have objects or seem to have them. Thus in such instances you have content without object. On the other hand, in seeing or hearing it would be less misleading to say that you have object without content, since what you see or hear is actually part of the physical world, though not matter in the sense of physics. Thus the whole question of the relation of mental occurrences to objects grows very complicated, and cannot be settled by regarding reference to objects as of the essence of thoughts. All the above remarks are merely preliminary, and will be expanded later.

My [5] own belief—for which the reasons will appear in subsequent lectures—is that James is right in rejecting consciousness as an entity, and that the American realists are partly right, though not wholly, in considering that both mind and matter are composed of a neutral-stuff which, in isolation, is neither mental nor material. I should admit

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[5] *Ibid.*, p. 25.

this view as regards sensations: what is heard or seen belongs equally to psychology and to physics. But I should say that images belong only to the mental world, while those occurrences (if any) which do not form part of any "experience" belong only to the physical world. There are, it seems to me, *prima facie* different kinds of causal laws, one belonging to physics and the other to psychology. The law of gravitation, for example, is a physical law, while the law of association is a psychological law. Sensations are subject to both kinds of laws, and are therefore truly "neutral" in Holt's sense. But entities subject only to physical laws, or only to psychological laws, are not neutral, and may be called respectively purely material and purely mental. Even those, however, which are purely mental will not have that intrinsic reference to objects which Brentano assigns to them and which constitutes the essence of "consciousness" as ordinarily understood. But it is now time to pass on to other modern tendencies, also hostile to "consciousness."

There is a psychological school called "Behaviorists," of whom the protagonist is Professor John B. Watson, of the Johns Hopkins University. To them also, on the whole, belongs Professor John Dewey, who, with James and Dr. Schiller, was one of the three founders of pragmatism. The view of the "behaviorists" is that nothing can be known except by external observation. They deny altogether that there is a separate source of knowledge called "introspection," by which we can know things about ourselves which we could never observe in others. They do not by any means deny that all sorts of things *may* go on in our minds: they only say that such things, if they occur, are not susceptible of scientific observation, and do not therefore concern psychology as a science. Psychology as a science, they say, is only concerned with *behavior,* i. e., with what we *do;* this alone, they contend, can be accurately observed.

Whether we think meanwhile, they tell us, cannot be known; in their observation of the behavior of human beings, they have not so far found any evidence of thought. True, we talk a great deal, and imagine that in so doing we are showing that we can think; but behaviorists say that the talk they have to listen to can be explained without supposing that people think. Where you might expect a chapter on "thought processes" you come instead upon a chapter on "The Language Habit." It is humiliating to find how terribly adequate this hypothesis turns out to be.

Behaviorism has not, however, sprung from observing the folly of men. It is the wisdom of animals that has suggested the view. It has always been a common topic of popular discussion whether animals "think." On this topic people are prepared to take sides without having the vaguest idea what they mean by "thinking." Those who desired to investigate such questions were led to observe the behavior of animals, in the hope that their behavior would throw some light on their mental faculties. At first sight, it might seem that this is so. People say that a dog "knows" his name because he comes when he is called, and that he "remembers" his master, because he looks sad in his absence, but wags his tail and barks when he returns. That the dog behaves in this way is matter of observation, but that he "knows" or "remembers" anything is an inference, and in fact a very doubtful one. The more such inferences are examined, the more precarious they are seen to be. Hence the study of animal behavior has been gradually led to abandon all attempt at mental interpretation. And it can hardly be doubted that, in many cases of complicated behavior very well adapted to its ends, there can be no prevision of those ends. The first time a bird builds a nest, we can hardly suppose it knows that there will be eggs to be laid in it, or that it will sit

on the eggs, or that they will hatch into young birds. It does what it does at each stage because instinct gives it an impulse to do just that, not because it foresees and desires the result of its actions.

Careful observers of animals, being anxious to avoid precarious inferences, have gradually discovered more and more how to give an account of the actions of animals without assuming what we call "consciousness." It has seemed to the behaviorists that similar methods can be applied to human behavior, without assuming anything not open to external observation. Let us give a crude illustration, too crude for the authors in question, but capable of affording a rough insight into their meaning. Suppose two children in a school, both of whom are asked "What is six times nine?" One says fifty-four, the other says fifty-six. The one, we say, "knows" what six times nine is, the other does not. But all that we can observe is a certain language-habit. The one child has acquired the habit of saying "six times nine is fifty-four"; the other has not. There is no more need of "thought" in this than there is when a horse turns into his accustomed stable; there are merely more numerous and complicated habits. There is obviously an observable fact called "knowing" such-and-such a thing; examinations are experiments for discovering such facts. But all that is observed or discovered is a certain set of habits in the use of words. The thoughts (if any) in the mind of the examinee are of no interest to the examiner; nor has the examiner any reason to suppose even the most successful examinee capable of even the smallest amount of thought.

Thus what is called "knowing," in the sense in which we can ascertain what other people "know," is a phenomenon exemplified in their physical behavior, including spoken and written words. There is no reason—so Watson argues—to suppose that their knowledge *is* anything be-

yond the habits shown in this behavior: the inference that other people have something non-physical called "mind" or "thought" is therefore unwarranted.

So far, there is nothing particularly repugnant to our prejudices in the conclusions of the behaviorists. We are all willing to admit that other people are thoughtless. But when it comes to ourselves, we feel convinced that we can actually perceive our own thinking. *"Cogito, ergo sum"* would be regarded by most people as having a true premiss. This, however, the behaviorist denies. He maintains that our knowledge of ourselves is no different in kind from our knowledge of other people. We may see *more,* because our own body is easier to observe than that of other people; but we do not see anything radically unlike what we see of others. Introspection, as a separate source of knowledge, is entirely denied by psychologists of this school. I shall discuss this question at length in a later lecture; for the present I will only observe that it is by no means simple, and that, though I believe the behaviorists somewhat overstate their case, yet there is an important element of truth in their contention, since the things which we can discover by introspection do not seem to differ in any very fundamental way from the things which we discover by external observation.

So far, we have been principally concerned with knowing. But it might well be maintained that desiring is what is really most characteristic of mind. Human beings are constantly engaged in achieving some end: they feel pleasure in success and pain in failure. In a purely material world, it may be said, there would be no opposition of pleasant and unpleasant, good and bad, what is desired and what is feared. A man's acts are governed by purposes. He decides, let us suppose, to go to a certain place, whereupon he proceeds to the station, takes his ticket and enters the train. If the usual route is blocked by an accident,

he goes by some other route. All that he does is determined —or so it seems—by the end he has in view, by what lies in front of him, rather than by what lies behind. With dead matter, this is not the case. A stone at the top of a hill may start rolling, but it shows no pertinacity in trying to get to the bottom. Any ledge or obstacle will stop it, and it will exhibit no signs of discontent if this happens. It is not attracted by the pleasantness of the valley, as a sheep or cow might be, but propelled by the steepness of the hill at the place where it is. In all this we have characteristic differences between the behavior of animals and the behavior of matter as studied by physics.

Desire, like knowledge, is, of course, in one sense an observable phenomenon. An elephant will eat a bun, but not a mutton chop; a duck will go into the water, but a hen will not. But when we think of our own desires, most people believe that we can know them by an immediate self-knowledge which does not depend upon observation of our actions. Yet if this were the case, it would be odd that people are so often mistaken as to what they desire. It is matter of common observation that "so-and-so does not know his own motives," or that "A is envious of B and malicious about him, but quite unconscious of being so." Such people are called self-deceivers, and are supposed to have had to go through some more or less elaborate process of concealing from themselves what would otherwise have been obvious. I believe that this is an entire mistake. I believe that the discovery of our own motives can only be made by the same process by which we discover other people's, namely, the process of observing our actions and inferring the desire which could prompt them. A desire is "conscious" when we have told ourselves that we have it. A hungry man may say to himself: "Oh, I do want my lunch." Then his desire is "conscious." But it only differs from an "unconscious" desire by the pres-

ence of appropriate words, which is by no means a fundamental difference.

What [6] have been called "unconscious" desires have been brought very much to the fore in recent years by psycho-analysis. Psycho-analysis, as every one knows, is primarily a method of understanding hysteria and certain forms of insanity; but it has been found that there is much in the lives of ordinary men and women which bears a humiliating resemblance to the delusions of the insane. The connection of dreams, irrational beliefs and foolish actions with unconscious wishes has been brought to light, though with some exaggeration, by Freud and Jung and their followers. As regards the nature of these unconscious wishes, it seems to me—though as a layman I speak with diffidence—that many psycho-analysts are unduly narrow; no doubt the wishes they emphasize exist, but others, e. g. for honor and power, are equally operative and equally liable to concealment. This, however, does not affect the value of their general theories from the point of view of theoretic psychology, and it is from this point of view that their results are important for the analysis of mind.

What, I think, is clearly established, is that a man's actions and beliefs may be wholly dominated by a desire of which he is quite unconscious, and which he indignantly repudiates when it is suggested to him. Such a desire is generally, in morbid cases, of a sort which the patient would consider wicked; if he had to admit that he had the desire, he would loathe himself. Yet it is so strong that it must force an outlet for itself; hence it becomes necessary to entertain whole systems of false beliefs in order to hide the nature of what is desired. The resulting delusions in very many cases disappear if the hysteric or lunatic can be made to face the facts about himself. The consequence

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[6] *Ibid.*, p. 32.

of this is that the treatment of many forms of insanity has grown more psychological and less physiological than it used to be. Instead of looking for a physical defect in the brain, those who treat delusions look for the repressed desire which has found this contorted mode of expression. For those who do not wish to plunge into the somewhat repulsive and often rather wild theories of psycho-analytic pioneers, it will be worth while to read a little book by Dr. Bernard Hart on *The Psychology of Insanity*. On this question of the mental as opposed to the physiological study of the causes of insanity, Dr. Hart says:

> "The psychological conception (of insanity) is based on the view that mental processes can be directly studied without any reference to the accompanying changes which are presumed to take place in the brain, and that insanity may therefore be properly attacked from the standpoint of psychology" (p. 9).

This illustrates a point which I am anxious to make clear from the outset. Any attempt to classify modern views, such as I propose to advocate, from the old standpoint of materialism and idealism, is only misleading. In certain respects, the views which I shall be setting forth approximate to materialism; in certain others, they approximate to its opposite.

CHAPTER XXI

TEMPORALISM

1. Space and Time

Bergson dwells upon the contrast between the properties of space as extension, and those of time as intension:[1]

Now, if space is to be defined as the homogeneous, it seems that inversely every homogeneous and unbounded medium will be space. For homogeneity here consisting in the absence of every quality, it is hard to see how two forms of the homogeneous could be distinguished from one another. Nevertheless it is generally agreed to regard time as an unbounded medium, different from space but homogeneous like the latter: the homogeneous is thus supposed to take two forms, according as its contents coexist or follow one another. It is true that, when we make time a homogeneous medium in which conscious states unfold themselves, we take it to be given all at once, which amounts to saying that we abstract it from duration. This simple consideration ought to warn us that we are thus unwittingly falling back upon space, and really giving up time. Moreover, we can understand that material objects, being exterior to one another and to ourselves, derive both exteriorities from the homogeneity of a medium which inserts intervals between them and sets off their outlines:

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[1] Bergson, *Time and Freewill*, pp. 98–110; translation of F. L. Pogson (1910); reprinted by permission of Allen & Unwin, Ltd., London. First published at Paris, 1888, under the title "The Immediate Data of Consciousness."

Henri Bergson (1859) is a French philosopher, professor at the College de France, Paris, since 1900.

but states of consciousness, even when successive, permeate one another, and in the simplest of them the whole soul can be reflected. We may therefore surmise that time, conceived under the form of a homogeneous medium, is some spurious concept, due to the trespassing of the idea of space upon the field of pure consciousness. At any rate we cannot finally admit two forms of the homogeneous, time and space, without first seeking whether one of them cannot be reduced to the other. Now, externality is the distinguishing mark of things which occupy space, while states of consciousness are not essentially external to one another, and become so only by being spread out in time, regarded as a homogeneous medium. If, then, one of these two supposed forms of the homogeneous, namely time and space, is derived from the other, we can surmise *a priori* that the idea of space is the fundamental datum. But, misled by the apparent simplicity of the idea of time, the philosophers who have tried to reduce one of these ideas to the other have thought that they could make extensity out of duration. While showing how they have been misled, we shall see that time, conceived under the form of an unbounded and homogeneous medium, is nothing but the ghost of space haunting the reflective consciousness.

The English school tries, in fact, to reduce relations of extensity to more or less complex relations of succession in time. When, with our eyes shut, we run our hands along a surface, the rubbing of our fingers against the surface, and especially the varied play of our joints, provide a series of sensations, which differ only by their *qualities* and which exhibit a certain order in time. Moreover, experience teaches us that this series can be reversed, that we can, by an effort of a different kind (or, as we shall call it later, *in an opposite direction*), obtain the same sensations over again in an inverse order: relations of position in space might then be defined as reversible relations

of succession in time. But such a definition involves a vicious circle, or at least a very superficial idea of time. There are, indeed, as we shall show a little later, two possible conceptions of time, the one free from all alloy, the other surreptitiously bringing in the idea of space. Pure duration is the form which the succession of our conscious states assumes when our ego lets itself *live*, when it refrains from separating its present state from its former states. For this purpose it need not be entirely absorbed in the passing sensation or idea; for then, on the contrary, it would no longer *endure*. Nor need it forget its former states: it is enough that, in recalling these states, it does not set them alongside its actual state as one point alongside another, but forms both the past and the present states into an organic whole, as happens when we recall the notes of a tune, melting, so to speak, into one another. Might it not be said that, even if these notes succeed one another, yet we perceive them in one another, and that their totality may be compared to a living being whose parts, although distinct, permeate one another just because they are so closely connected? The proof is that, if we interrupt the rhythm by dwelling longer than is right on one note of the tune, it is not its exaggerated length, as length, which will warn us of our mistake, but the qualitative change thereby caused in the whole of the musical phrase. We can thus conceive of succession without distinction, and think of it as a mutual penetration, an interconnection and organization of elements, each one of which represents the whole, and cannot be distinguished or isolated from it except by abstract thought. Such is the account of duration which would be given by a being who was ever the same and ever changing, and who had no idea of space. But, familiar with the latter idea and indeed beset by it, we introduce it unwittingly into our feeling of pure succession; we set our states of consciousness side by side in

such a way as to perceive them simultaneously, no longer in one another, but alongside one another; in a word, we project time into space, we express duration in terms of extensity, and succession thus takes the form of a continuous line or a chain, the parts of which touch without penetrating one another. Note that the mental image thus shaped implies the perception, no longer successive, but simultaneous, or a *before* and *after*, and that it would be a contradiction to suppose a succession which was only a succession, and which nevertheless was contained in one and the same instant. Now, when we speak of an *order* of succession in duration, and of the reversibility of this order, is the succession we are dealing with pure succession, such as we have just defined it, without any admixture of extensity, or is it succession developing in space, in such a way that we can take in at once a number of elements which are both distinct and set side by side? There is no doubt about the answer: we could not introduce *order* among terms without first distinguishing them and then comparing the places which they occupy; hence we must perceive them as multiple, simultaneous and distinct; in a word, we set them side by side, and if we introduce an order in what is successive, the reason is that succession is converted into simultaneity and is projected into space. In short, when the movement of my finger along a surface or a line provides me with a series of sensations of different qualities, one of two things happens: either I picture these sensations to myself as in duration only, and in that case they succeed one another in such a way that I cannot at a given moment perceive a number of them as simultaneous and yet distinct; or else I make out an order of succession, but in that case I display the faculty not only of perceiving a succession of elements, but also of setting them out in line after having distinguished them: in a word, I already possess the idea of space. Hence the idea

of a reversible series in duration, or even simply of a certain *order* of succession in time, itself implies the representation of space, and cannot be used to define it.

To give this argument a stricter form, let us imagine a straight line of unlimited length, and on this line a material point A, which moves. If this point were conscious of itself, it would feel itself change, since it moves: it would perceive a succession; but would this succession assume for it the form of a line? No doubt it would, if it could rise, so to speak, above the line which it traverses, and perceive simultaneously several points of it in juxtaposition: but by doing so it would form the idea of space, and it is in space and not in pure duration that it would see displayed the changes which it undergoes. We here put our finger on the mistake of those who regard pure duration as something similar to space, but of a simpler nature. They are fond of setting psychic states side by side, of forming a chain or a line of them, and do not imagine that they are introducing into this operation the idea of space properly so called, the idea of space in its totality, because space is a medium of three dimensions. But how can they fail to notice that, in order to perceive a line as a line, it is necessary to take up a position outside it, to take account of the void which surrounds it, and consequently to think a space of three dimensions? If our conscious point A does not yet possess the idea of space—and this is the hypothesis which we have agreed to adopt—the succession of states through which it passes cannot assume for it the form of a line; but its sensations will add themselves dynamically to one another and will organize themselves, like the successive notes of a tune by which we allow ourselves to be lulled and soothed. In a word, pure duration might well be nothing but a succession of qualitative changes, which melt into and permeate one another, without precise outlines, without any tendency to

externalize themselves in relation to one another, without any affiliation with number: it would be pure heterogeneity. But for the present we shall not insist upon this point; it is enough for us to have shown that, from the moment when you attribute the least homogeneity to duration, you surreptitiously introduce space.

It is true that we count successive moments of duration, and that, because of its relations with number, time at first seems to us to be a measurable magnitude, just like space. But there is here an important distinction to be made. I say, e.g., that a minute has just elapsed, and I mean by this that a pendulum, beating the seconds, has completed sixty oscillations. If I pictured these sixty oscillations to myself all at once by a single mental perception, I exclude by hypothesis the idea of a succession. I do not think of sixty strokes which succeed one another, but of sixty points on a fixed line, each one of which symbolizes, so to speak, an oscillation of the pendulum. If, on the other hand, I wish to picture these sixty oscillations in succession, but without altering the way they are produced in space, I shall be compelled to think of each oscillation to the exclusion of the recollection of the preceding one, for space has preserved no trace of it; but by doing so I shall condemn myself to remain for ever in the present; I shall give up the attempt to think of a succession or a duration. Now if, finally, I retain the recollection of the preceding oscillation together with the image of the present oscillation, one of two things will happen. Either I shall set the two images side by side, and we then fall back on our first hypothesis, or I shall perceive one in the other, each permeating the other and organizing themselves like the notes of a tune, so as to form what we shall call a continuous or qualitative multiplicity with no resemblance to number. I shall thus get the image of pure duration; but I shall have entirely

got rid of the idea of a homogeneous medium or a measurable quantity. By carefully examining our consciousness we shall recognize that it proceeds in this way whenever it refrains from representing duration symbolically. When the regular oscillations of the pendulum make us sleepy, is it the last sound heard, the last movement perceived, which produces this effect? No, undoubtedly not, for why then should not the first have done the same? Is it the recollection of the preceding sounds or movements, set in juxtaposition to the last one? But this same recollection, if it is later on set in juxtaposition to a single sound or movement, will remain without effect. Hence we must admit that the sounds combined with one another and acted, not by their quantity as quantity, but by the quality which their quantity exhibited, i.e., by the rhythmic organization of the whole. Could the effect of a slight but continuous stimulation be understood in any other way? If the sensation remained always the same, it would continue to be indefinitely slight and indefinitely bearable. But the fact is that each increase of stimulation is taken up into the preceding stimulations, and that the whole produces on us the effect of a musical phrase which is constantly on the point of ending and constantly altered in its totality by the addition of some new note. If we assert that it is always the *same* sensation, the reason is that we are thinking, not of the sensation itself, but of its objective cause situated in space. We then set it out in space in its turn, and in place of an organism which develops, in place of changes which permeate one another, we perceive one and the same sensation stretching itself out lengthwise, so to speak, and setting itself in juxtaposition to itself without limit. Pure duration, that which consciousness perceives, must thus be reckoned among the so-called intensive magnitudes, if intensities can be called magnitudes: strictly speaking, however, it is not a quantity, and as soon

as we try to measure it, we unwittingly replace it by space.

But we find it extraordinarily difficult to think of duration in its original purity; this is due, no doubt, to the fact that we do not *endure* alone, external objects, it seems, *endure* as we do, and time, regarded from this point of view, has every appearance of a homogeneous medium. Not only do the moments of this duration seem to be external to one another, like bodies in space, but the movement perceived by our senses is the, so to speak, palpable sign of a homogeneous and measurable duration. Nay more, time enters into the formulae of mechanics, into the calculations of the astronomer, and even of the physicist, under the form of a quantity. We measure the velocity of a movement, implying that time itself is a magnitude. Indeed, the analysis which we have just attempted requires to be completed, for if duration properly so called cannot be measured, what is it that is measured by the oscillations of the pendulum? Granted that inner duration, perceived by consciousness, is nothing else but the melting of states of consciousness into one another, and the gradual growth of the ego, it will be said, notwithstanding, that the time which the astronomer introduces into his formulae, the time which our clocks divide into equal portions, this time, at least, is something different: it must be measurable and therefore homogeneous magnitude.—It is nothing of the sort, however, and a close examination will dispel this last illusion.

When I follow with my eyes on the dial of a clock the movement of the hand which corresponds to the oscillations of the pendulum, I do not measure duration, as seems to be thought; I merely count simultaneities, which is very different. Outside of me, in space, there is never more than a single position of the hand and the pendulum, for nothing is left of the past positions. Within myself a

process of organization or interpenetration of conscious states is going on, which constitutes true duration. It is because I *endure* in this way that I picture to myself what I call the past oscillations of the pendulum at the same time as I perceive the present oscillation. Now, let us withdraw for a moment the ego which thinks these so-called successive oscillations: there will never be more than a single oscillation, and indeed only a single position, of the pendulum, and hence no duration. Withdraw, on the other hand, the pendulum and its oscillations; there will no longer be anything but the heterogeneous duration of the ego, without moments external to one another, without relation to number. Thus, within our ego, there is succession without mutual externality; outside the ego, in pure space, mutual externality without succession: mutual externality, since the present oscillation is radically distinct from the previous oscillation, which no longer exists; but no succession, since succession exists solely for a conscious spectator who keeps the past in mind and sets the two oscillations or their symbols side by side in an auxiliary space. Now, between this succession without externality and this externality without succession, a kind of exchange takes place, very similar to what physicists call the phenomenon of endosmosis. As the successive phases of our conscious life, although interpenetrating, correspond individually to an oscillation of the pendulum which occurs at the same time, and as, moreover, these oscillations are sharply distinguished from one another, we get into the habit of setting up the same distinction between the successive moments of our conscious life: the oscillations of the pendulum break it up, so to speak, into parts external to one another: hence the mistaken idea of a homogeneous inner duration, similar to space, the moments of which are identical and follow, without penetrating, one another. But, on the other hand, the oscillations of the pendulum,

which are distinct only because one has disappeared when the other appears on the scene, profit, as it were, from the influence which they have thus exercised over our conscious life. Owing to the fact that our consciousness has organized them as a whole in memory, they are first preserved and afterwards disposed in a series: in a word, we create for them a fourth dimension of space, which we call homogeneous time, and which enables the movement of the pendulum, although taking place at one spot, to be continually set in juxtaposition to itself. Now, if we try to determine the exact part played by the real and the imaginary in this very complex process, this is what we find. There is a real space, without duration, in which phenomena appear and disappear simultaneously with our states of consciousness. There is a real duration, the heterogeneous moments of which permeate one another; each moment, however, can be brought into relation with a state of the external world which is contemporaneous with it, and can be separated from the other moments in consequence of this very process. The comparison of these two realities gives rise to a symbolical representation of duration, derived from space. Duration thus assumes the illusory form of a homogeneous medium, and the connecting link between these two terms, space and duration, is simultaneity, which might be defined as the intersection of time and space.

2. Body and Mind

Bergson's interpretation of this problem is a form of interactionism, the chief features of which are suggested by the following passages: [2]

Our perception, we said, is originally in things rather than in the mind, without us rather than within. The

[2] Bergson, *Matter and Memory*, translated by Paul and Palmer (1911), pp. 291–198; reprinted by permission of Allen & Unwin, Ltd., London. First published at Paris, 1896.

several kinds of perception correspond to so many directions actually marked out in reality. But, we added, this perception, which coincides with its object, exists rather in theory than in fact: it could only happen if we were shut up within the present moment. In concrete perception memory intervenes, and the subjectivity of sensible qualities is due precisely to the fact that our consciousness, which begins by being only memory, prolongs a plurality of moments into each other, contracting them into a single intuition.

Consciousness and matter, body and soul, were thus seen to meet each other in perception. But in one aspect this idea remained for us obscure, because our perception, and consequently also our consciousness, seemed thus to share in the divisibility which is attributed to matter. If, on the dualistic hypothesis, we naturally shrink from accepting the partial coincidence of the perceived object and the perceiving subject, it is because we are conscious of the undivided unity of our perception, whereas the object appears to us to be, in essence, infinitely divisible. Hence the hypothesis of a consciousness with inextensive sensations, placed over against an extended multiplicity. But if the divisibility of matter is entirely relative to our action thereon, that is to say to our faculty of modifying its aspect, if it belongs not to matter itself but to the space which we throw beneath this matter in order to bring it within our grasp, then the difficulty disappears. Extended matter, regarded as a whole, is like a consciousness where everything balances and compensates and neutralizes everything else; it possesses in very truth the indivisibility of our perception; so that, inversely, we may without scruple attribute to perception something of the extensity of matter. These two terms, perception and matter, approach each other in the measure that we divest ourselves of what may be called the prejudices of action: sensation recovers

extensity, the concrete extended recovers its natural continuity and indivisibility. And homogeneous space, which stood between the two terms like an insurmountable barrier, is then seen to have no other reality than that of a diagram or a symbol. It interests the behavior of a being which acts upon matter, but not the work of a mind which speculates on its essence.

Thereby also some light may be thrown upon the problem towards which all our inquiries converge, that of the union of body and soul. The obscurity of this problem, on the dualistic hypothesis, comes from the double fact that matter is considered as essentially divisible and every state of the soul as rigorously inextensive, so that from the outset the communication between the two terms is severed. And when we go more deeply into this double postulate, we discover, in regard to matter, a confusion of concrete and indivisible extensity with the divisible space which underlies it; and also, in regard to mind, the illusory idea that there are no degrees, no possible transition, between the extended and the unextended. But if these two postulates involve a common error, if there is a gradual passage from the idea to the image and from the image to the sensation; if, in the measure in which it evolves towards actuality, that is to say towards action, the mental state draws nearer to extension; if, finally, this extension once attained remains undivided and therefore is not out of harmony with the unity of the soul; we can understand that spirit can rest upon matter and consequently unite with it in the act of pure perception, yet nevertheless be radically distinct from it. It is distinct from matter in that it is, even then, *memory,* that is to say a synthesis of past and present with a view to the future, in that it contracts the moments of this matter in order to use them and to manifest itself by actions which are the final aim of its union with the body. We were right, then, when we said, at the beginning

of this book, that the distinction between body and mind must be established in terms not of space but of time.

The mistake of ordinary dualism is that it starts from the spatial point of view: it puts on the one hand matter with its modifications in space, on the other unextended sensations in consciousness. Hence the impossibility of understanding how the spirit acts upon the body or the body upon spirit. Hence hypotheses which are and can be nothing but disguised statements of the fact—the idea of a parallelism or of a pre-established harmony. But hence also the impossibility of constituting either a psychology of memory or a metaphysic of matter. We have striven to show that this psychology and this metaphysic are bound up with each other, and that the difficulties are less formidable in a dualism which, starting from *pure* perception, where subject and object coincide, follows the development of the two terms in their respective durations —matter, the further we push its analysis, tending more and more to be only a succession of infinitely rapid moments which may be deduced each from the other and thereby are *equivalent to each other;* spirit being in perception already memory, and declaring itself more and more as a prolonging of the past into the present, a *progress,* a true evolution.

But does the relation of body and mind become thereby clearer? We substitute a temporal for a spatial distinction: are the two terms any the more able to unite? It must be observed that the first distinction does not admit of degree: matter is supposed to be in space, spirit to be extra-spatial; there is no possible transition between them. But if, in fact, the humblest function of spirit is to bind together the successive moments of the duration of things, if it is by this that it comes into contact with matter and by this also that it is first of all distinguished from matter, we can conceive an infinite number of degrees between

matter and fully developed spirit—a spirit capable of action which is not only undetermined, but also reasonable and reflective. Each of these successive degrees, which measures a growing intensity of life, corresponds to a higher tension of duration and is made manifest externally by a greater development of the sensori-motor system. But let us consider this nervous system itself: we note that its increasing complexity appears to allow an ever greater latitude to the activity of the living being, the faculty of waiting before reacting, and of putting the excitation received into relation with an ever richer variety of motor mechanisms. Yet this is only the outward aspect; and the more complex organization of the nervous system, which seems to assure the greater independence of the living being in regard to matter, is only the material symbol of that independence itself, that is to say of the inner energy which allows the being to free itself from the rhythm of the flow of things, and to retain in an ever higher degree the past in order to influence ever more deeply the future—the symbol, in the special sense which we give to the word, of its memory. Thus, between brute matter and the mind most capable of reflection there are all possible intensities of memory or, what comes to the same thing, all the degrees of freedom. On the first hypothesis, that which expresses the distinction between spirit and body in terms of space, body and spirit are like two railway lines which cut each other at a right angle; on the second, the rails come together in a curve, so that we pass insensibly from the one to the other.

But have we here anything but a metaphor? Does not a marked distinction, an irreducible opposition, remain between matter properly so called and the lowest degree of freedom or of memory? Yes, no doubt, the distinction subsists, but union becomes possible, since it would be given, under the radical form of a partial coincidence, in *pure* perception. The difficulties of ordinary dualism come,

not from the distinction of the two terms, but from the impossibility of seeing how the one is grafted upon the other. Now, as we have shown, pure perception, which is the lowest degree of mind—mind without memory—is really part of matter, as we understand matter. We may go further: memory does not intervene as a function of which matter has no presentiment and which it does not imitate in its own way. If matter does not remember the past, it is because it repeats the past unceasingly, because, subject to necessity, it unfolds a series of moments of which each is the equivalent of the preceding moment and may be deduced from it: thus its past is truly given in its present. But a being which evolves more or less freely creates something new every moment: in vain, then, should we seek to read its past in its present unless its past were deposited within it in the form of memory. Thus, to use again a metaphor which has more than once appeared in this book, it is necessary, and for similar reasons, that the past should be *acted* by matter, *imagined* by mind.

3. Mechanism and Finalism

Bergson's criticism of both radical mechanism and radical finalism is summed up in the following: [3]

The fact is, neither one nor the other of these two theories, neither that which affirms nor that which denies the possibility of chemically producing an elementary organism, can claim the authority of experiment. They are both unverifiable, the former because science has not yet advanced a step toward the chemical synthesis of a living substance, the second because there is no conceivable way of proving experimentally the impossibility of a fact. But we have set forth the theoretical reasons which prevent us from likening the living being, a system closed off by nature,

[3] Bergson, *Creative Evolution*, Mitchell's translation (Henry Holt & Co., 1911), pp. 36–41; reprinted by permission of the publishers.

to the systems which our science isolates. These reasons have less force, we acknowledge, in the case of a rudimentary organism like the amoeba, which hardly evolves at all. But they acquire more when we consider a complex organism which goes through a regular cycle of transformations. The more duration marks the living being with its imprint, the more obviously the organism differs from a mere mechanism, over which duration glides without penetrating. And the demonstration has most force when it applies to the evolution of life as a whole, from its humblest origins to its highest forms, inasmuch as this evolution constitutes, through the unity and continuity of the animated matter which supports it, a single indivisible history. Thus viewed, the evolutionist hypothesis does not seem so closely akin to the mechanistic conception of life as it is generally supposed to be. Of this mechanistic conception we do not claim, of course, to furnish a mathematical and final refutation. But the refutation which we draw from the consideration of real time, and which is, in our opinion, the only refutation possible, becomes the more rigorous and cogent the more frankly the evolutionist hypothesis is assumed. We must dwell a good deal more on this point. But let us first show more clearly the notion of life to which we are leading up.

The mechanistic explanations, we said, hold good for the systems that our thought artificially detaches from the whole. But of the whole itself and of the systems which, within this whole, seem to take after it, we cannot admit *a priori* that they are mechanically explicable, for then time would be useless, and even unreal. The essence of mechanical explanation, in fact, is to regard the future and the past as calculable functions of the present, and thus to claim that *all is given.* On this hypothesis, past, present and future would be open at a glance to a superhuman intellect capable of making the calculation. Indeed,

the scientists who have believed in the universality and perfect objectivity of mechanical explanations have, consciously or unconsciously, acted on a hypothesis of this kind. Laplace formulated it with the greatest precision: 'An intellect which at a given instant knew all the forces with which nature is animated, and the respective situations of the beings that compose nature—supposing the said intellect were vast enough to subject these data to analysis—would embrace in the same formula the motions of the greatest bodies in the universe and those of the slightest atom: nothing would be uncertain for it, and the future, like the past, would be present to its eyes.' And Du Bois-Reymond: 'We can imagine the knowledge of a nature arrived at a point where the universal process of the world might be represented by a single mathematical formula, by one immense system of simultaneous differential equations, from which could be deduced, for each moment, the position, direction, and velocity of every atom of the world.' Huxley has expressed the same idea in a more concrete form: 'If the fundamental proposition of evolution is true, that the entire world, living and not living, is the result of the mutual interaction, according to definite laws, of the forces possessed by the molecules of which the primitive nebulosity of the universe was composed, it is no less certain that the existing world lay, potentially, in the cosmic vapor, and that a sufficient intellect could, from a knowledge of the properties of the molecules of that vapor, have predicted, say the state of the Fauna of Great Britain in 1869, with as much certainty as one can say what will happen to the vapor of the breath in a cold winter's day.' In such a doctrine, time is still spoken of: one pronounces the word, but one does not think of the thing. For time is here deprived of efficacy, and if it *does* nothing, it *is* nothing. Radical mechanism implies a metaphysic in which the totality of

the real is postulated complete in eternity, and in which the apparent duration of things expresses merely the infirmity of a mind that cannot know everything at once. But duration is something very different from this for our consciousness, that is to say, for that which is most indisputable in our experience. We perceive duration as a stream against which we cannot go. It is the foundation of our being, and, as we feel, the very substance of the world in which we live. It is of no use to hold up before our eyes the dazzling prospect of a universal mathematic; we cannot sacrifice experience to the requirements of a system. That is why we reject radical mechanism.

But radical finalism is quite as unacceptable, and for the same reason. The doctrine of teleology, in its extreme form, as we find it in Leibniz for example, implies that things and beings merely realize a programme previously arranged. But if there is nothing unforeseen, no invention or creation in the universe, time is useless again. As in the mechanistic hypothesis, here again it is supposed that *all is given*. Finalism thus understood is only inverted mechanism. It springs from the same postulate, with this sole difference, that in the movement of our finite intellects along successive things, whose successiveness is reduced to a mere appearance, it holds in front of us the light with which it claims to guide us, instead of putting it behind. It substitutes the attraction of the future for the impulsion of the past. But succession remains none the less a mere appearance, as indeed does movement itself. In the doctrine of Leibniz, time is reduced to a confused perception, relative to the human standpoint, a perception which would vanish, like a rising mist, for a mind seated at the center of things.

Yet finalism is not, like mechanism, a doctrine with fixed rigid outlines. It admits of as many inflections as we like. The mechanistic philosophy is to be taken or left: it must

be left if the least grain of dust, by straying from the path foreseen by mechanics, should show the slightest trace of spontaneity. The doctrine of final causes, on the contrary, will never be definitively refuted. If one form of it be put aside, it will take another. Its principle, which is essentially psychological, is very flexible. It is so extensible, and thereby so comprehensive, that one accepts something of it as soon as one rejects pure mechanism. The theory we shall put forward in this book will therefore necessarily partake of finalism to a certain extent. For that reason it is important to intimate exactly what we are going to take of it, and what we mean to leave.

Let us say at once that to thin out the Leibnizian finalism by breaking it into an infinite number of pieces seems to us a step in the wrong direction. This is, however, the tendency of the doctrine of finality. It fully realizes that if the universe as a whole is the carrying out of a plan, this cannot be demonstrated empirically, and that even of the organized world alone it is hardly easier to prove all harmonious: facts would equally well testify to the contrary. Nature sets living beings at discord with one another. She everywhere presents disorder alongside of order, retrogression alongside of progress. But, though finality cannot be affirmed either of the whole of matter or of the whole of life, might it not yet be true, says the finalist, of each organism taken separately? Is there not a wonderful division of labor, a marvelous solidarity among the parts of an organism, perfect order in infinite complexity? Does not each living being thus realize a plan immanent in its substance?—This theory consists, at bottom, in breaking up the original notion of finality into bits. It does not accept, indeed it ridicules, the idea of an *external* finality, according to which living beings are ordered with regard to each other: to suppose the grass made for the cow, the lamb for the wolf—that is all ac-

knowledged to be absurd. But there is, we are told, an *internal* finality: each being is made for itself, all its parts conspire for the greatest good of the whole and are intelligently organized in view of that end. Such is the notion of finality which has long been classic. Finalism has shrunk to the point of never embracing more than one living being at a time. By making itself smaller, it probably thought it would offer less surface for blows.

4. Intuition and Intellect

Bergson's interpretation of intelligence is *instrumentalist.* Its function is analysis, and this is one means to the end of serving life; but the same end is served in a different way and for some aspects of life more adequately by intuition: [4]

A comparison of the definitions of metaphysics and the various conceptions of the absolute leads to the discovery that philosophers, in spite of their apparent divergencies, agree in distinguishing two profoundly different ways of knowing a thing. The first implies that we move round the object; the second that we enter into it. The first depends on the point of view at which we are placed and on the symbols by which we express ourselves. The second neither depends on a point of view nor relies on any symbol. The first kind of knowledge may be said to stop at the *relative;* the second, in those cases where it is possible, to attain the *absolute.*

Consider, for example, the movement of an object in space. My perception of the motion will vary with the point of view, moving or stationary, from which I observe it. My expression of it will vary with the systems of axes, or the points of reference, to which I relate it; that is, with the symbols by which I translate it. For this

[4] Bergson, *Introduction to Metaphysics,* translated by T. E. Hulme, (G. P. Putnam's Sons, N. Y., 1912), pp. 1–3, 5–13; reprinted by permission of the publishers.

double reason I call such motion *relative*: in the one case, as in the other, I am placed outside the object itself. But when I speak of an *absolute* movement, I am attributing to the moving object an interior and, so to speak, states of mind; I also imply that I am in sympathy with those states, and that I insert myself in them by an effort of imagination. Then, according as the object is moving or stationary, according as it adopts one movement or another, what I experience will vary. And what I experience will depend neither on the point of view I may take up in regard to the object, since I am inside the object itself, nor on the symbols by which I may translate the motion, since I have rejected all translations in order to possess the original. In short, I shall no longer grasp the movement from without, remaining where I am, but from where it is, from within, as it is in itself. I shall possess an absolute.

It [5] is in this sense, and in this sense only, that *absolute* is synonymous with *perfection.* Were all the photographs of a town, taken from all possible points of view, to go on indefinitely completing one another, they would never be equivalent to the solid town in which we walk about. Were all the translations of a poem into all possible languages to add together their various shades of meaning and, correcting each other by a kind of mutual retouching, to give a more and more faithful image of the poem they translate, they would yet never succeed in rendering the inner meaning of the original. A representation taken from a certain point of view, a translation made with certain symbols, will always remain imperfect in comparison with the object of which a view has been taken, or which the symbols seek to express. But the absolute, which is the object and not its representation, the original and not its translation, is perfect, by being perfectly what it is.

[5] *Ibid.*, pp. 5–13.

It is doubtless for this reason that the *absolute* has often been identified with the *infinite*. Suppose that I wished to communicate to some one who did not know Greek the extraordinarily simple impression that a passage in Homer makes upon me; I should first give a translation of the lines, I should then comment on my translation, and then develop the commentary; in this way, by piling up explanation on explanation, I might approach nearer and nearer to what I wanted to express; but I should never quite reach it. When you raise your arm, you accomplish a movement of which you have, from within, a simple perception; but for me, watching it from the outside, your arm passes through one point, then through another, and between these two there will be still other points; so that, if I began to count, the operation would go on forever. Viewed from the inside, then, an absolute is a simple thing; but looked at from the outside, that is to say, relatively to other things, it becomes, in relation to these signs which express it, the gold coin for which we never seem able to finish giving small change. Now, that which lends itself at the same time both to an indivisible apprehension and to an inexhaustible enumeration is, by the very definition of the word, an infinite.

It follows from this that an absolute could only be given in an *intuition,* whilst everything else falls within the province of *analysis.* By intuition is meant the kind of *intellectual sympathy* by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible. Analysis, on the contrary, is the operation which reduces the object to elements already known, that is, to elements common both to it and other objects. To analyze, therefore, is to express a thing as a function of something other than itself. All analysis is thus a translation, a development into symbols, a representation taken from successive points of view from which

we note as many resemblances as possible between the new object which we are studying and others which we believe we know already. In its eternally unsatisfied desire to embrace the object around which it is compelled to turn, analysis multiplies without end the number of its points of view in order to complete its always incomplete representation, and ceaselessly varies its symbols that it may perfect the always imperfect translation. It goes on, therefore, to infinity. But intuition, if intuition is possible, is a simple act.

Now it is easy to see that the ordinary function of positive science works, then, above all, with symbols. Even the most concrete of the natural sciences, those concerned with life, confine themselves to the visible form of living beings, their organs and anatomical elements. They make comparisons between these forms, they reduce the more complex to the more simple; in short, they study the workings of life in what is, so to speak, only its visual symbol. If there exists any means of possessing a reality absolutely instead of knowing it relatively, of placing oneself within it instead of looking at it from outside points of view, of having the intuition instead of making the analysis: in short, of seizing it without any expression, translation, or symbolic representation—metaphysics is that means. *Metaphysics, then, is the science which claims to dispense with symbols.*

There is one reality, at least, which we all seize from within, by intuition and not by simple analysis. It is our own personality in its flowing through time—our self which endures. We may sympathize intellectually with nothing else, but we certainly sympathize with our own selves.

When I direct my attention inward to contemplate my own self (supposed for the moment to be inactive), I perceive at first, as a crust solidified on the surface, all the perceptions which come to it from the material world.

These perceptions are clear, distinct, juxtaposed or juxtaposable one with another; they tend to group themselves into objects. Next, I notice the memories which more or less adhere to these perceptions and which serve to interpret them. These memories have been detached, as it were, from the depth of my personality, drawn to the surface by the perceptions which resemble them; they rest on the surface of my mind without being absolutely myself. Lastly, I feel the stir of tendencies and motor habits—a crowd of virtual actions, more or less firmly bound to these perceptions and memories. All these clearly defined elements appear more distinct from me, the more distinct they are from each other. Radiating, as they do, from within outwards, they form, collectively, the surface of a sphere which tends to grow larger and lose itself in the exterior world. But if I draw myself in from the periphery towards the center, if I search in the depth of my being that which is most uniformly, most constantly, and most enduringly myself, I find an altogether different thing.

There is, beneath these sharply cut crystals and this frozen surface, a continuous flux which is not comparable to any flux I have ever seen. There is a succession of states, each of which announces that which follows and contains that which precedes it. They can, properly speaking, only be said to form multiple states when I have already passed them and turn back to observe their track. Whilst I was experiencing them they were solidly organized, so profoundly animated with a common life, that I could not have said where any one of them finished or where another commenced. In reality no one of them begins or ends, but all extend into each other.

This inner life may be compared to the unrolling of a coil, for there is no living being who does not feel himself coming gradually to the end of his rôle; and to live is to grow old. But it may just as well be compared to a con-

tinual rolling up, like that of a thread on a ball, for our past follows us, it swells incessantly with the present that it picks up on its way; and consciousness means memory.

But actually it is neither an unrolling nor a rolling up, for these two similes evoke the idea of lines and surfaces whose parts are homogeneous and superposable on one another. Now, there are no two identical moments in the life of the same conscious being. Take the simplest sensation, suppose it constant, absorb in it the entire personality: the consciousness which will accompany this sensation cannot remain identical with itself for two consecutive moments, because the second moment always contains, over and above the first, the memory that the first has bequeathed to it. A consciousness which could experience two identical moments would be a consciousness without memory. It would die and be born again continually. In what other way could one represent unconsciousness?

CHAPTER XXII

INSTRUMENTALISM

1. The Function of Intelligence

The following gives a typical statement of the instrumentalist's interpretation of the function of intelligence in life:[1]

Is it possible for a living being to increase its control of welfare and success? Can it manage, in any degree, to assure its future? Or does the amount of security depend wholly upon the accidents of the situation? Can it learn? Can it gain ability to assure its future in the present? These questions center attention upon the significance of reflective intelligence in the process of experience. The extent of an agent's capacity for inference, its power to use a given fact as a sign of something not yet given, measures the extent of its ability systematically to enlarge its control of the future.

A being which can use given and finished facts as signs of things to come; which can take given things as evidences of absent things, can, in that degree, forecast the future; it can form reasonable expectations. It is capable of achieving ideas; it is possessed of intelligence. For use of the given or finished to anticipate the consequence of processes going on is precisely what is meant by "ideas," by "intelligence."

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[1] Dewey, J., and others, *Creative Intelligence*, pp. 21–29 (Henry Holt & Co., 1917); reprinted by permission of the publishers.

John Dewey (1859– —) is an American philosopher, psychologist and educator; professor successively at Minnesota, Michigan, Chicago, and Columbia; leading exponent of the doctrine called Instrumentalism.

As we have already noted, the environment is rarely all of a kind in its bearing upon organic welfare; its most whole-hearted support of life-activities is precarious and temporary. Some environmental changes are auspicious; others are menacing. The secret of success—that is, of the greatest attainable success—is for the organic response to cast in its lot with present auspicious changes to strengthen them and thus avert the consequences flowing from occurrences of ill-omen. Any reaction is a venture; it involves risk. We always build better or worse than we can foretell. But the organism's fateful intervention in the course of events is blind, its choice is random, except as it can employ what happens to it as a basis of inferring what is likely to happen later. In the degree in which it can read future results in present on-goings, its responsive choice, its partiality to this condition or that, become intelligent. Its bias grows reasonable. It can deliberately, intentionally, participate in the direction of the course of affairs. Its foresight of different futures which result according as this or that present factor predominates in the shaping of affairs permits it to partake intelligently instead of blindly and fatally in the consequences its reactions give rise to. Participate it must, and to its own weal or woe. Inference, the use of what happens, to anticipate what will—or at least may—happen, makes the difference between directed and undirected participation. And this capacity for inferring is precisely the same as that use of natural occurrences for the discovery and determination of consequences—the formation of new dynamic connections—which constitutes knowledge.

The fact that thought is an intrinsic feature of experience is fatal to the traditional empiricism which makes it an artificial by-product. But for that same reason it is fatal to the historic rationalisms whose justification was the secondary and retrospective position assigned to thought

by empirical philosophy. According to the particularism of the latter, thought was inevitably only a bunching together of hard-and-fast separate items; thinking was but the gathering together and tying of items already completely given, or else an equally artificial untying—a mechanical adding and subtracting of the given. It was but a cumulative registration, a consolidated merger; generality was a matter of bulk, not of quality. Thinking was therefore treated as lacking constructive power; even its organizing capacity was but simulated, being in truth but arbitrary pigeon-holing. Genuine projection of the novel, deliberate variation and invention, are idle fictions in such a version of experience. If there ever was creation, it all took place at a remote period. Since then the world has only recited lessons.

The value of inventive construction is too precious to be disposed of in this cavalier way. Its unceremonious denial afforded an opportunity to assert that in addition to experience the subject has a ready-made faculty of thought or reason which transcends experience. Rationalism thus accepted the account of experience given by traditional empiricism, and introduced reason as extra-empirical. There are still thinkers who regard any empiricism as necessarily committed to a belief in a cut-and-dried reliance upon disconnected precedents, and who hold that all systematic organization of past experiences for new and constructive purposes is alien to strict empiricism.

Rationalism never explained, however, how a reason extraneous to experience could enter into helpful relation with concrete experiences. By definition, reason and experience were antithetical, so that the concern of reason was not the fruitful expansion and guidance of the course of experience, but a realm of considerations too sublime to touch, or be touched by, experience. Discreet rationalists confined themselves to theology and allied branches of

abstruse science, and to mathematics. Rationalism would have been a doctrine reserved for academic specialists and abstract formalists had it not assumed the task of providing an apologetics for traditional morals and theology, thereby getting into touch with actual human beliefs and concerns. It is notorious that historic empiricism was strong in criticism and in demolition of outworn beliefs, but weak for purposes of constructive social direction. But we frequently overlook the fact that whenever rationalism cut free from conservative apologetics, it was also simply an instrumentality for pointing out inconsistencies and absurdities in existing beliefs—a sphere in which it was immensely useful, as the Enlightenment shows. Leibniz and Voltaire were contemporary rationalists in more senses than one.

The recognition that reflection is a genuine factor within experience and an indispensable factor in that control of the world which secures a prosperous and significant expansion of experience undermines historic rationalism as assuredly as it abolishes the foundations of historic empiricism. The bearing of a correct idea of the place and office of reflection upon modern idealisms is less obvious, but no less certain.

One of the curiosities of orthodox empiricism is that its outstanding speculative problem is the existence of an "external world." For in accordance with the notion that experience is attached to a private subject as its exclusive possession, a world like the one in which we appear to live must be "external" to experience instead of being its subject-matter. I call it a curiosity, for if anything seems adequately grounded empirically it is the existence of a world which resists the characteristic functions of the subject of experience; which goes its way, in some respects, independently of these functions, and which frustrates our hopes and intentions. Ignorance which is fatal; disap-

pointment; the need of adjusting means and ends to the course of nature, would seem to be facts sufficiently characterizing empirical situations as to render the existence of an external world indubitable.

That the description of experience was arrived at by forcing actual empirical facts into conformity with dialectic developments from a concept of a knower outside of the real world of nature is testified to by the historic alliance of empiricism and idealism. According to the most logically consistent editions of orthodox empiricism, all that can be experienced is the fleeting, the momentary, mental state. That alone is absolutely and indubitably present; therefore, it alone is cognitively certain. It alone is *knowledge.* The existence of the past (and of the future), of a decently stable world and of other selves—indeed, of one's own self—falls outside this datum of experience. These can be arrived at only by inference which is "ejective"—a name given to an alleged type of inference that jumps from experience, as from a springboard, to something beyond experience.

I should not anticipate difficulty in showing that this doctrine is, dialectically, a mass of inconsistencies. Avowedly it is a doctrine of desperation, and as such it is cited here to show the desperate straits to which ignoring empirical facts has reduced a doctrine of experience. More positively instructive are the objective idealisms which have been the offspring of the marriage between the "reason" of historic rationalism and the alleged immediate psychical stuff of historic empiricism. These idealisms have recognized the genuineness of connections and the impotency of "feeling." They have then identified connections with logical or rational connections, and thus treated "the real World" as a synthesis of sentient consciousness by means of a rational self-consciousness introducing objectivity: stability and universality of reference.

Here again, for present purposes, criticism is unnecessary. It suffices to point out that the value of this theory is bound up with the genuineness of the problem of which it purports to be a solution. If the basic concept is a fiction, there is no call for the solution. The more important point is to perceive how far the "thought" which figures in objective idealism comes from meeting the empirical demands made upon actual thought. Idealism is much less formal than historic rationalism. It treats thought, or reason, as constitutive of experience by means of uniting and constructive functions, not as just concerned with a realm of eternal truths apart from experience. On such a view thought certainly loses its abstractness and remoteness. But, unfortunately, in thus gaining the whole world it loses its own self. A world already, in its intrinsic structure, dominated by thought is not a world in which, save by contradiction of premises, thinking has anything to do.

That the doctrine logically results in making change unreal and error unaccountable are consequences of importance in the technique of professional philosophy; in the denial of empirical fact which they imply they seem to many a *reductio ad absurdum* of the premises from which they proceed. But, after all, such consequences are of only professional import. What is serious, even sinister, is the implied sophistication regarding the place and office of reflection in the scheme of things. A doctrine which exalts thought in name while ignoring its efficacy in fact (that is, its use in bettering life) is a doctrine which cannot be entertained and taught without serious peril. Those who are not concerned with professional philosophy but who are solicitous for intelligence as a factor in the amelioration of actual conditions can but look askance at any doctrine which holds that the entire scheme of things is already, if we but acquire the knack of looking at it

aright, fixedly and completely rational. It is a striking manifestation of the extent in which philosophies have been compensatory in quality. But the matter cannot be passed over as if it were simply a question of not grudging a certain amount of consolation to one amid the irretrievable evils of life. For as to these evils no one knows how many are retrievable; and a philosophy which proclaims the ability of a dialectic theory of knowledge to reveal the world as already and eternally a self-luminous rational whole, contaminates the scope and use of thought at its very spring. To substitute the otiose insight gained by manipulation of a formula for the slow coöperative work of a humanity guided by reflective intelligence is more than a technical blunder of speculative philosophers.

A practical crisis may throw the relationship of ideas to life into an exaggerated Brocken-like spectral relief; where exaggeration renders perceptible features not ordinarily noted. The use of force to secure narrow because exclusive aims is no novelty in human affairs. The deploying of all the intelligence at command in order to increase the effectiveness of the force used is not so common, yet presents nothing intrinsically remarkable. The identification of force—military, economic, and administrative—with moral necessity and moral culture is, however, a phenomenon not likely to exhibit itself on a wide scale except where intelligence has already been suborned by an idealism which identifies "the actual with the rational," and thus finds the measure of reason in the brute event determined by superior force. If we are to have a philosophy which will intervene between attachment to rule of thumb muddling and devotion to a systematized subordination of intelligence to preëxistent ends, it can be found only in a philosophy which finds the ultimate measure of intelligence in consideration of a desirable future and in search for the means of bringing it progressively into existence.

When professed idealism turns out to be a narrow pragmatism—narrow because taking for granted the finality of ends determined by historic conditions—the time has arrived for a pragmatism which shall be empirically idealistic, proclaiming the essential connection of intelligence with the unachieved future—with possibilities involving a transfiguration.

2. Ethics and Social Philosophy

The following is a representative passage from one of Dewey's later works in the field of ethics: [2]

It sounds academic to say that substantial bettering of social relations waits upon the growth of a scientific social psychology. For the term suggests something specialized and remote. But the formation of habits of belief, desire and judgment is going on at every instant under the influence of the conditions set by men's contact, intercourse and associations with one another. This is the fundamental fact in social life and in personal character. It is the fact about which traditional human science gives no enlightenment—a fact which this traditional science blurs and virtually denies. The enormous rôle played in popular morals by appeal to the supernatural and quasi-magical is in effect a desperate admission of the futility of our science. Consequently the whole matter of the formation of the predispositions which effectively control human relationships is left to accident, to custom and immediate personal likings, resentments and ambitions. It is a commonplace that modern industry and commerce are conditioned upon a control of physical energies due to proper methods of physical inquiry and analysis. We have no social arts which are comparable because we have so nearly nothing in the way of psychological science. Yet through the de-

[2] Dewey, *Human Nature and Conduct* (Henry Holt and Co., N. Y., 1922), pp. 323–332; reprinted by permission of the publishers.

velopment of physical science, and especially of chemistry, biology, physiology, medicine and anthropology we now have the basis for the development of such a science of man. Signs of its coming into existence are present in the movements in clinical, behavioristic and social (in its narrower sense) psychology.

At present we not only have no assured means of forming character except crude devices of blame, praise, exhortation and punishment, but the very meaning of the general notions of moral inquiry is matter of doubt and dispute. The reason is that these notions are discussed in isolation from the concrete facts of the interactions of human beings with one another—an abstraction as fatal as was the old discussion of phlogiston, gravity and vital force apart from concrete correlations of changing events with one another. Take for example such a basic conception as that of Right involving the nature of authority in conduct. There is no need here to rehearse the multitude of contending views which give evidence that discussion of this matter is still in the realm of opinion. We content ourselves with pointing out that this notion is the last resort of the anti-empirical school in morals and that it proves the effect of neglect of social conditions.

In effect its adherents argue as follows: "Let us concede that concrete ideas about right and wrong and particular notions of what is obligatory have grown up within experience. But we cannot admit this about the idea of Right, of Obligation itself. Why does moral authority exist at all? Why is the claim of the Right recognized in conscience even by those who violate it in deed? Our opponents say that such and such a course is wise, expedient, better. But *why* act for the wise, or good, or better? Why not follow our own immediate devices if we are so inclined? There is only one answer: We have a moral nature, a conscience, call it what you will. And this nature responds

directly in acknowledgment of the supreme authority of the Right over all claims of inclination and habit. We may not act in accordance with this acknowledgment, but we still know that the authority of the moral law, although not its power, is unquestionable. Men may differ indefinitely according to what their experience has been as to just *what* is Right, what its contents are. But they all spontaneously agree in recognizing the supremacy of the claims of whatever is thought of as Right. Otherwise there would be no such thing as morality, but merely calculations of how to satisfy desire."

Grant the foregoing argument, and all the apparatus of abstract moralism follows in its wake. A remote goal of perfection, ideals that are contrary in a wholesale way to what is actual, a free will of arbitrary choice; all of these conceptions band themselves together with that of a non-empirical authority or Right and a non-empirical conscience which acknowledges it. They constitute its ceremonial or formal train.

Why, indeed, acknowledge the authority of Right? That many persons do not acknowledge it in fact, in action, and that all persons ignore it at times, is assumed by the argument. Just what is the significance of an alleged recognition of a supremacy which is continually denied in fact? How much would be lost if it were dropped out, and we were left face to face with actual facts? If a man lived alone in the world there might be some sense in the question "Why be moral?" were it not for one thing: No such question would then arise. As it is, we live in a world where other persons live too. Our acts affect them. They perceive these effects, and react upon us in consequence. Because they are living beings they make demands upon us for certain things from us. They approve and condemn —not in abstract theory but in what they do to us. The answer to the question "Why not put your hand in the

fire?'' is the answer of fact. If you do your hand will be burnt. The answer to the question why acknowledge the right is of the same sort. For Right is only an abstract name for the multitude of concrete demands in action which others impress upon us, and of which we are obliged, if we would live, to take some account. Its authority is the exigency of their demands, the efficacy of their insistencies. There may be good ground for the contention that in theory the idea of the right is subordinate to that of the good, being a statement of the course proper to attain good. But in fact it signifies the totality of social pressures exercised upon us to induce us to think and desire in certain ways. Hence the right can in fact become the road to the good only as the elements that compose this unremitting pressure are enlightened, only as social relationships become themselves reasonable.

It will be retorted that all pressure is a non-moral affair partaking of force, not of right; that right must be ideal. Thus we are invited to enter again the circle in which the ideal has no force and social actualities no ideal quality. We refuse the invitation because social pressure is involved in our own lives, as much so as the air we breathe and the ground we walk upon. If we had desires, judgments, plans, in short a mind, apart from social connections, then the latter would be external and their action might be regarded as that of a non-moral force. But we live mentally as physically only *in* and *because* of our environment. Social pressure is but a name for the interactions which are always going on and in which we participate, living so far as we partake and dying so far as we do not. The pressure is not ideal but empirical, yet empirical here means only actual. It calls attention to the fact that considerations of right are claims originating not outside of life, but within it. They are ''ideal'' in precisely the degree in which we intelligently recognize and act upon them, just

as colors and canvas become ideal when used in ways that give an added meaning to life.

Accordingly failure to recognize the authority of right means defect in effective apprehension of the realities of human association, not an arbitrary exercise of free will. This deficiency and perversion in apprehension indicates a defect in education—that is to say, in the operation of actual conditions, in the consequences upon desire and thought of existing interactions and interdependencies. It is false that every person has a consciousness of the supreme authority of right and then misconceives it or ignores it in action. One has such a sense of the claims of social relationships as those relationships enforce in one's desires and observations. The belief in a separate, ideal or transcendental, practically ineffectual Right is a reflex of the inadequacy with which existing institutions perform their educative office—their office in generating observation of social continuities. It is an endeavor to "rationalize" this defect. Like all rationalizations, it operates to divert attention from the real state of affairs. Thus it helps maintain the conditions which created it, standing in the way of effort to make our institutions more humane and equitable. A theoretical acknowledgment of the supreme authority of Right, of moral law, gets twisted into an effectual substitute for acts which would better the customs which now produce vague, dull, halting and evasive observation of actual social ties. We are not caught in a circle; we traverse a spiral in which social customs generate some consciousness of interdependencies, and this consciousness is embodied in acts which in improving the environment generate new perceptions of social ties, and so on forever. The relationships, the interactions are forever there as fact, but they acquire meaning only in the desires, judgments and purposes they awaken.

We recur to our fundamental propositions. Morals is

connected with actualities of existence, not with ideals, ends and obligations independent of concrete actualities. The facts upon which it depends are those which arise out of actual connections of human beings with one another, the consequences of their mutually intertwined activities in the life of desire, belief, judgment, satisfaction and dissatisfaction. In this sense conduct and hence morals are social: they are not just things which *ought* to be social and which fail to come up to the scratch. But there are enormous differences of better and worse in the quality of what is social. Ideal morals begin with the perception of these differences. Human interaction and ties are there, are operative in any case. But they can be regulated, employed in an orderly way for good only as we know how to observe them. And they cannot be observed aright, they cannot be understood and utilized, when the mind is left to itself to work without the aid of science. For the natural unaided mind means precisely the habits of belief, thought and desire which have been accidentally generated and confirmed by social institutions or customs. But with all their admixture of accident and reasonableness we have at last reached a point where social conditions create a mind capable of scientific outlook and inquiry. To foster and develop this spirit is the social obligation of the present because it is its urgent need.

Yet the last word is not with obligation nor with the future. Infinite relationships of man with his fellows and with nature already exist. The ideal means, as we have seen, a sense of these encompassing continuities with their infinite reach. This meaning even now attaches to present activities because they are set in a whole to which they belong and which belongs to them. Even in the midst of conflict, struggle and defeat a consciousness is possible of the enduring and comprehending whole.

To be grasped and held this consciousness needs, like

every form of consciousness, objects, symbols. In the past men have sought many symbols which no longer serve, especially since men have been idolators worshiping symbols as things. Yet within these symbols which have so often claimed to be realities and which have imposed themselves as dogmas and intolerances, there has rarely been absent some trace of a vital and enduring reality, that of a community of life in which continuities of existence are consummated. Consciousness of the whole has been connected with reverences, affections, and loyalties which are communal. But special ways of expressing the communal sense have been established. They have been limited to a select social group; they have hardened into obligatory rites and been imposed as conditions of salvation. Religion has lost itself in cults, dogmas and myths. Consequently the office of religion as sense of community and one's place in it has been lost. In effect religion has been distorted into a possession—or burden—of a limited part of human nature, of a limited portion of humanity which finds no way to universalize religion except by imposing its own dogmas and ceremonies upon others; of a limited class within a partial group; priests, saints, a church. Thus other gods have been set up before the one God. Religion as a sense of the whole is the most individualized of all things, the most spontaneous, undefinable and varied. For individuality signifies unique connections in the whole. Yet it has been perverted into something uniform and immutable. It has been formulated into fixed and defined beliefs expressed in required acts and ceremonies. Instead of marking the freedom and peace of the individual as a member of an infinite whole, it has been petrified into a slavery of thought and sentiment, an intolerant superiority on the part of the few and an intolerable burden on the part of the many.

Yet every act may carry within itself a consoling and

supporting consciousness of the whole to which it belongs and which in some sense belongs to it. With responsibility for the intelligent determination of particular acts may go a joyful emancipation from the burden for responsibility for the whole which sustains them, giving them their final outcome and quality. There is a conceit fostered by perversion of religion which assimilates the universe to our personal desires; but there is also a conceit of carrying the load of the universe from which religion liberates us. Within the flickering inconsequential acts of separate selves dwells a sense of the whole which claims and dignifies them. In its presence we put off mortality and live in the universal. The life of the community in which we live and have our being is the fit symbol of this relationship. The acts in which we express our perception of the ties which bind us to others are its only rites and ceremonies.

3. Theory of Education

The following is also a representative passage from one of Dewey's later works:[3]

1. The Implications of Human Association.—Society is one word, but many things. Men associate together in all kinds of ways and for all kinds of purposes. One man is concerned in a multitude of diverse groups, in which his associates may be quite different. It often seems as if they had nothing in common except that they are modes of associated life. Within every larger social organization there are numerous minor groups: not only political subdivisions, but industrial, scientific, religious, associations. There are political parties with differing aims, social sets, cliques, gangs, corporations, partnerships, groups bound closely together by ties of blood, and so in endless variety. In many modern states, and in some ancient, there is great

[3] Dewey, *Democracy and Education*, pp. 94–106 (Macmillan, N. Y., 1916); reprinted by permission of the publishers.

diversity of populations, of varying languages, religions, moral codes, and traditions. From this standpoint, many a minor political unit, one of our large cities, for example, is a congeries of loosely associated societies, rather than an inclusive and permeating community of action and thought.

The terms society, community, are thus ambiguous. They have both a eulogistic or normative sense, and a descriptive sense; a meaning *de jure* and a meaning *de facto*. In social philosophy, the former connotation is almost always uppermost. Society is conceived as one by its very nature. The qualities which accompany this unity, praiseworthy community of purpose and welfare, loyalty to public ends, mutuality of sympathy, are emphasized. But when we look at the facts which the term *denotes* instead of confining our attention to its intrinsic *connotation*, we find not unity, but a plurality of societies, good and bad. Men banded together in a criminal conspiracy, business aggregations that prey upon the public while serving it, political machines held together by the interest of plunder, are included. If it is said that such organizations are not societies because they do not meet the ideal requirements of the notion of society, the answer, in part, is that the conception of society is then made so "ideal" as to be of no use, having no reference to facts; and in part, that each of these organizations, no matter how opposed to the interests of other groups, has something of the praiseworthy qualities of "Society" which hold it together. There is honor among thieves, and a band of robbers has a common interest as respects its members. Gangs are marked by fraternal feeling, and narrow cliques by intense loyalty to their own codes. Family life may be marked by exclusiveness, suspicion, and jealousy as to those without, and yet be a model of amity and mutual aid within. Any education given by a group tends to socialize its members, but the

quality and value of the socialization depends upon the habits and aims of the group.

Hence, once more, the need of a measure for the worth of any given mode of social life. In seeking this measure, we have to avoid two extremes. We cannot set up, out of our heads, something we regard as an ideal society. We must base our conception upon societies which actually exist, in order to have any assurance that our ideal is a practicable one. But, as we have just seen, the ideal cannot simply repeat the traits which are actually found. The problem is to extract the desirable traits of forms of community life which actually exist, and employ them to criticize undesirable features and suggest improvement. Now in any social group whatever, even in a gang of thieves, we find some interest held in common, and we find a certain amount of interaction and coöperative intercourse with other groups. From these two traits we derive our standard. How numerous and varied are the interests which are consciously shared? How full and free is the interplay with other forms of association? If we apply these considerations to, say, a criminal band, we find that the ties which consciously hold the members together are few in number, reducible almost to a common interest in plunder; and that they are of such a nature as to isolate the group from other groups with respect to give and take of the values of life. Hence, the education such a society gives is partial and distorted. If we take, on the other hand, the kind of family life which illustrates the standard, we find that there are material, intellectual, aesthetic interests in which all participate and that the progress of one member has worth for the experience of other members—it is readily communicable—and that the family is not an isolated whole, but enters intimately into relationships with business groups, with schools, with all the agencies of culture, as well as with other similar groups, and that it

plays a due part in the political organization and in return receives support from it. In short, there are many interests consciously communicated and shared; and there are varied and free points of contact with other modes of association.

I. Let us apply the first element in this criterion to a despotically governed state. It is not true there is no common interest in such an organization between governed and governors. The authorities in command must make some appeal to the native activities of the subjects, must call some of their powers into play. Talleyrand said that a government could do everything with bayonets except sit on them. This cynical declaration is at least a recognition that the bond of union is not merely one of coercive force. It may be said, however, that the activities appealed to are themselves unworthy and degrading—that such a government calls into functioning activity simply capacity for fear. In a way, this statement is true. But it overlooks the fact that fear need not be an undesirable factor in experience. Caution, circumspection, prudence, desire to foresee future events so as to avert what is harmful, these desirable traits are as much a product of calling the impulse of fear into play as is cowardice and abject submission. The real difficulty is that the appeal to fear is *isolated*. In evoking dread and hope of specific tangible reward—say comfort and ease—many other capacities are left untouched. Or rather, they are affected, but in such a way as to pervert them. Instead of operating on their own account they are reduced to mere servants of attaining pleasure and avoiding pain.

This is equivalent to saying that there is no extensive number of common interests; there is no free play back and forth among the members of the social group. Stimulation and response are exceedingly one sided. In order to have a large number of values in common, all the members of the group must have an equable opportunity to receive

and to take from others. There must be a large variety of shared undertakings and experiences. Otherwise, the influences which educate some into masters, educate others into slaves. And the experience of each party loses in meaning, when the free interchange of varying modes of life-experience is arrested. A separation into a privileged and a subject-class prevents social endosmosis. The evils thereby affecting the superior class are less material and less perceptible, but equally real. Their culture tends to be sterile, to be turned back to feed on itself; their art becomes a showy display and artificial; their wealth luxurious; their knowledge over-specialized; their manners fastidious rather than humane.

Lack of the free and equitable intercourse which springs from a variety of shared interests makes intellectual stimulation unbalanced. Diversity of stimulation means novelty, and novelty means challenge to thought. The more activity is restricted to a few definite lines—as it is when there are rigid class lines preventing adequate interplay of experiences—the more action tends to become routine on the part of the class at a disadvantage, and capricious, aimless, and explosive on the part of the class having the materially fortunate position. Plato defined a slave as one who accepts from another the purposes which control his conduct. This condition obtains even where there is no slavery in the legal sense. It is found wherever men are engaged in activity which is socially serviceable, but whose service they do not understand and have no personal interest in. Much is said about scientific management of work. It is a narrow view which restricts the science which secures efficiency of operation to movements of the muscles. The chief opportunity for science is the discovery of the relations of a man to his work—including his relations to others who take part—which will enlist his intelligent interest in what he is doing. Efficiency in pro-

duction often demands division of labor. But it is reduced to a mechanical routine unless workers see the technical, intellectual, and social relationships involved in what they do, and engage in their work because of the motivation furnished by such perceptions. The tendency to reduce such things as efficiency of activity and scientific management to purely technical externals is evidence of the one-sided stimulation of thought given to those in control of industry—those who supply its aims. Because of their lack of all-round and well-balanced social interest, there is not sufficient stimulus for attention to the human factors and relationships in industry. Intelligence is narrowed to the factors concerned with technical production and marketing of goods. No doubt, a very acute and intense intelligence in these narrow lines can be developed, but the failure to take into account the significant social factors means none the less an absence of mind, and a corresponding distortion of emotional life.

II. This illustration (whose point is to be extended to all associations lacking reciprocity of interest) brings us to our second point. The isolation and exclusiveness of a gang or clique brings its antisocial spirit into relief. But this same spirit is found wherever one group has interests "of its own" which shut it out from full interaction with other groups, so that its prevailing purpose is the protection of what it has got, instead of reorganization and progress through wider relationships. It marks nations in their isolation from one another; families which seclude their domestic concerns as if they had no connection with a larger life; schools when separated from the interest of home and community; the divisions of rich and poor; learned and unlearned. The essential point is that isolation makes for rigidity and formal institutionalizing of life, for static and selfish ideals within the group. That savage tribes regard aliens and enemies as synonymous is not accidental. It

springs from the fact that they have identified their experience with rigid adherence to their past customs. On such a basis it is wholly logical to fear intercourse with others, for such contact might dissolve custom. It would certainly occasion reconstruction. It is a commonplace that an alert and expanding mental life depends upon an enlarging range of contact with the physical environment. But the principle applies even more significantly to the field where we are apt to ignore it—the sphere of social contacts.

Every expansive era in the history of mankind has coincided with the operation of factors which have tended to eliminate distance between peoples and classes previously hemmed off from one another. Even the alleged benefits of war, so far as more than alleged, spring from the fact that conflict of peoples at least enforces intercourse between them and thus accidentally enables them to learn from one another, and thereby to expand their horizons. Travel, economic and commercial tendencies, have at present gone far to break down external barriers; to bring peoples and classes into closer and more perceptible connection with one another. It remains for the most part to secure the intellectual and emotional significance of this physical annihilation of space.

2. The Democratic Ideal.—The two elements in our criterion both point to democracy. The first signifies not only more numerous and more varied points of shared common interest, but greater reliance upon the recognition of mutual interests as a factor in social control. The second means not only freer interaction between social groups (once isolated so far as intention could keep up a separation) but change in social habit—its continuous readjustment through meeting the new situations produced by varied intercourse. And these two traits are precisely what characterize the democratically constituted society.

Upon the educational side, we note first that the realiza-

tion of a form of social life in which interests are mutually inter-penetrating, and where progress, or readjustment, is an important consideration, makes a democratic community more interested than other communities have cause to be in deliberate and systematic education. The devotion of democracy to education is a familiar fact. The superficial explanation is that a government resting upon popular suffrage cannot be successful unless those who elect and who obey their governors are educated. Since a democratic society repudiates the principle of external authority, it must find a substitute in voluntary disposition and interest; these can be created only by education. But there is a deeper explanation. A democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience. The extension in space of the number of individuals who participate in an interest so that each has to refer his own action to that of others and to consider the action of others to give point and direction to his own, is equivalent to the breaking down of those barriers of class, race, and national territory which kept men from perceiving the full import of their activity. These more numerous and more varied points of contact denote a greater diversity of stimuli to which an individual has to respond; they consequently put a premium on variation in his action. They secure a liberation of powers which remain suppressed as long as the incitations to action are partial, as they must be in a group which in its exclusiveness shuts out many interests.

The widening of the area of shared concerns, and the liberation of a greater diversity of personal capacities which characterize a democracy, are not of course the product of deliberation and conscious effort. On the contrary, they were caused by the development of modes of manufacture and commerce, travel, migration, and intercommunication which flowed from the command of science over natural

energy. But after greater individualization on one hand, and a broader community of interest on the other have come into existence, it is a matter of deliberate effort to sustain and extend them. Obviously a society to which stratification into separate classes would be fatal, must see to it that intellectual opportunities are accessible to all on equable and easy terms. A society marked off into classes need be specially attentive only to the education of its ruling elements. A society which is mobile, which is full of channels for the distribution of a change occurring anywhere, must see to it that its members are educated to personal initiative and adaptability. Otherwise, they will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive. The result will be a confusion in which a few will appropriate to themselves the results of the blind and externally directed activities of others.

3. The Platonic Educational Philosophy.—Subsequent chapters will be devoted to making explicit the implications of the democratic ideas in education. In the remaining portions of this chapter, we shall consider the educational theories which have been evolved in three epochs when the social import of education was especially conspicuous. The first one to be considered is that of Plato. No one could better express than did he the fact that a society is stably organized when each individual is doing that for which he has aptitude by nature in such a way as to be useful to others (or to contribute to the whole to which he belongs); and that it is the business of education to discover these aptitudes and progressively to train them for social use. Much which has been said so far is borrowed from what Plato first consciously taught the world. But conditions which he could not intellectually control led him to restrict these ideas in their application. He never got any conception of the indefinite plurality of activities which may

characterize an individual and a social group, and consequently limited his view to a limited number of *classes* of capacities and of social arrangements.

Plato's starting point is that the organization of society depends ultimately upon knowledge of the end of existence. If we do not know its end, we shall be at the mercy of accident and caprice. Unless we know the end, the good, we shall have no criterion for rationally deciding what the possibilities are which should be promoted, nor how social arrangements are to be ordered. We shall have no conception of the proper limits and distribution of activities—what he called justice—as a trait of both individual and social organization. But how is the knowledge of the final and permanent good to be achieved? In dealing with this question we come upon the seemingly insuperable obstacle that such knowledge is not possible save in just and harmonious social order. Everywhere else the mind is distracted and misled by false valuations and false perspectives. A disorganized and factional society sets up a number of different models and standards. Under such conditions it is impossible for the individual to attain consistency of mind. Only a complete whole is fully self-consistent. A society which rests upon the supremacy of some factor over another irrespective of its rational or proportionate claims, inevitably leads thought astray. It puts a premium on certain things and slurs over others, and creates a mind whose seeming unity is forced and distorted. Education proceeds ultimately from the patterns furnished by institutions, customs, and laws. Only in a just state will these be such as to give the right education; and only those who have rightly trained minds will be able to recognize the end, and ordering principle of things. We seem to be caught in a hopeless circle. However, Plato suggested a way out. A few men, philosophers or lovers of wisdom—or truth—may by study learn at least in outline the proper

patterns of true existence. If a powerful ruler should form a state after these patterns, then its regulations could be preserved. An education could be given which would sift individuals, discovering what they were good for, and supplying a method of assigning each to the work in life for which his nature fits him. Each doing his part, and never transgressing, the order and unity of the whole would be maintained.

It would be impossible to find in any scheme of philosophic thought a more adequate recognition on one hand of the educational significance of social arrangements and, on the other, of the dependence of those arrangements upon the means used to educate the young. It would be impossible to find a deeper sense of the function of education in discovering and developing personal capacities, and training them so that they would connect with the activities of others. Yet the society in which the theory was propounded was so undemocratic that Plato could not work out a solution for the problem whose terms he clearly saw.

While he affirmed with emphasis that the place of the individual in society should not be determined by birth or wealth or any conventional status, but by his own nature as discovered in the process of education, he had no perception of the uniqueness of individuals. For him they fall by nature into classes, and into a very small number of classes at that. Consequently the testing and sifting function of education only shows to which one of three classes an individual belongs. There being no recognition that each individual constitutes his own class, there could be no recognition of the infinite diversity of active tendencies and combinations of tendencies of which an individual is capable. There were only three types of faculties or powers in the individual's constitution. Hence education would soon reach a static limit in each class, for only diversity makes change and progress.

In some individuals, appetites naturally dominate; they are assigned to the laboring and trading class, which expresses and supplies human wants. Others reveal, upon education, that over and above appetites, they have a generous, outgoing, assertively courageous disposition. They become the citizen-subjects of the state; its defenders in war; its internal guardians in peace. But their limit is fixed by their lack of reason, which is a capacity to grasp the universal. Those who possess this are capable of the highest kind of education, and become in time the legislators of the state—for laws are the universals which control the particulars of experience. Thus it is not true that in intent, Plato subordinated the individual to the social whole. But it is true that lacking the perception of the uniqueness of every individual, his incommensurability with others, and consequently not recognizing that a society might change and yet be stable, his doctrine of limited powers and classes came in net effect to the idea of the subordination of individuality.

We cannot better Plato's conviction that an individual is happy and society well organized when each individual engages in those activities for which he has a natural equipment nor his conviction that it is the primary office of education to discover this equipment to its possessor and train him for its effective use. But progress in knowledge has made us aware of the superficiality of Plato's lumping of individuals and their original powers into a few sharply marked-off classes; it has taught us that original capacities are indefinitely numerous and variable. It is but the other side of this fact to say that in the degree in which society has become democratic, social organization means utilization of the specific and variable qualities of individuals, not stratification by classes. Although his educational philosophy was revolutionary, it was none the less in bondage to static ideals. He thought that change or alteration

was evidence of lawless flux; that true reality was unchangeable. Hence while he would radically change the existing state of society, his aim was to construct a state in which change would subsequently have no place. The final end of life is fixed; given a state framed with this end in view, not even minor details are to be altered. Though they might not be inherently important, yet if permitted they would inure the minds of men to the idea of change, and hence be dissolving and anarchic. The breakdown of his philosophy is made apparent in the fact that he could not trust to gradual improvements in education to bring about a better society which should then improve education, and so on indefinitely. Correct education could not come into existence until an ideal state existed, and after that education would be devoted simply to its conservation. For the existence of this state he was obliged to trust to some happy accident by which philosophic wisdom should happen to coincide with possession of ruling power in the state.

PART III

THE CHIEF PROBLEMS OF CONSTRUCTIVE PHILOSOPHY

CHAPTER XXIII

THE PROBLEM OF EVOLUTION AND TELEOLOGY

1. The Law of Evolution

The following passage from Spencer's *First Principles* gives a convenient summary of the type of evidence upon which the theory of evolution rests, and is one of the best-known statements of the general law of evolution:[1]

Our Sidereal System by its general form, by its clusters of stars of all degrees of closeness, and by its nebulæ in all stages of condensation, gives grounds for suspecting that, generally and locally, concentration is going on. Assume that its matter has been, and still is being, drawn together by gravitation, and we have an explanation of its leading traits of structure—from its solidified masses up to its collections of attenuated flocculi barely discernible by the most powerful telescopes, from its double stars up to such complex aggregates as the nubeculæ. Without dwelling on this evidence, however, let us pass to the case of the Solar System.

The belief, so variously supported, that this has had a nebular genesis, is the belief that it has arisen by the integration of matter and concomitant loss of motion. Evolution, under its primary aspect, is illustrated most simply and clearly by this passage of the Solar System from a diffused incoherent state to a consolidated coherent state.

While, according to the nebular hypothesis, there has been going on a gradual concentration of the Solar Sys-

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[1] Spencer, H., *First Principles*, §§ 108–111; reprinted from the 6th edition (1900) by permission of D. Appleton and Company.

tem as an aggregate, there has been a simultaneous concentration of each partially independent member. The changes of every planet in passing through its stages of nebulous ring, gaseous spheroid, liquid spheroid, and spheroid externally solidified, have in essentials—dissipation of motion and aggregation of matter—paralleled the changes gone through by the general mass; and those of every satellite have done the like.

Moreover, at the same time that the matter of the whole, as well as the matter of each partially independent part, has been thus integrating, there has been the further integration implied by increasing combination among the parts. The satellites of each planet are linked with their primary into a balanced cluster; while the planets and their satellites form with the Sun, a compound group of which the members are more strongly bound together than were the far-spread portions of the nebulous medium out of which they arose.

Even apart from the nebular hypothesis, the Solar System furnishes facts having a like general meaning. Not to make much of the meteoric matter perpetually added to the Earth, and probably to the other planets, as well as, in larger quantities to the Sun, it will suffice to name two generally-admitted instances. The one is the retardation of comets by the ethereal medium, and the inferred retardation of planets—a process which must in time, as Lord Kelvin argues, bring comets, and eventually planets, into the Sun. The other is the Sun's still-continued loss of motion in the shape of radiated heat; accompanying the still-continued integration of his mass.

To astronomic evolution we pass without break to the evolution which, for convenience, we separate as geologic. The history of the Earth, as traced out from the structure of its crust, carries us back to that molten state which the nebular hypothesis implies; and, as before pointed out, the changes called igneous are accompaniments of the advanc-

ing consolidation of the Earth's substance and loss of its contained motion. The general and the local effects must be briefly exemplified.

Leaving behind the time when the more volatile elements now existing as solids were kept by the high temperature in a gaseous form, we may begin with the fact that until the Earth's surface had cooled far below red heat, the mass of water at present covering three-fifths of it must have existed as vapor. This enormous volume of unintegrated liquid became integrated as fast as dissipation of the Earth's contained motion allowed; leaving, at length, a comparatively small portion uncondensed, which would condense but for the unceasing absorption of molecular motion from the Sun.

In the formation of the Earth's crust we have a similar change similarly caused. The passage from a thin solid film, everywhere fissured and moveable on the subjacent molten matter, to a crust so thick and strong as to be but now and then very slightly dislocated by disturbing forces illustrates the process. And while in this superficial solidification, we see under one form how concentration accompanies loss of contained motion, we see it under another form in that diminution of the Earth's bulk implied by superficial corrugation.

Local or secondary integrations have advanced along with this general integration. A molten spheroid merely skinned over with solid matter, could have presented nothing beyond small patches of land and water. Differences of elevation great enough to form islands of considerable size, imply a crust of some rigidity; and only as the crust grew thick could the land be united into continents divided by oceans. So, too, with the more striking elevations. The collapse of a thin layer round its cooling and contracting contents, would throw it into low ridges. The crust must have acquired a relatively great depth and strength before extensive mountain systems of vast elevation became pos-

sible: continued integration of it made possible great local integrations.

In sedimentary changes, a like progress is inferable. Denudation acting on the small surfaces exposed during early stages, would produce but small local deposits. The collection of detritus into strata of great extent, and the union of such strata into extensive "systems," imply wide surfaces of land and water, as well as subsidences great in both area and depth; so that integrations of this order must have grown more pronounced as the Earth's crust thickened.

Already we have recognized the fact that the evolution of an organism is primarily the formation of an aggregate, by the continued incorporation of matter previously spread through a wider space. Every plant grows by taking into itself elements that were before diffused, and every animal grows by re-concentrating these elements previously dispersed in surrounding plants or other animals. Here it will be proper to complete the conception by pointing out that the early history of a plant or animal, still more clearly than its later history, shows us this fundamental process. For the microscopic germ of each organism undergoes, for a long time, no other change than that implied by absorption of nutriment. Cells imbedded in the stroma of an ovarium become ova by little else than continued growth at the expense of adjacent materials. And when, after fertilization, a more active evolution commences, its most conspicuous trait is the drawing, in to a germinal centre, of the substance which the ovum contains.

Here, however, our attention must be directed mainly to the secondary integrations which accompany the primary integration. We have to observe how, along with the formation of a larger mass of matter, there goes on a gathering together and consolidation of this matter into parts, as well as a closer combination of the parts.

In the mammalian embryo the heart, at first a long

pulsating blood-vessel, by and by twists upon itself and integrates. The bile-cells constituting the rudimentary liver, do not simply become different from the wall of the intestine in which they at first lie, but, while accumulating, they diverge from it and consolidate into an organ. The anterior portions of the cerebro-spinal axis, at first continuous with the rest, and not markedly distinguished from it, undergoes a union of its rapidly growing parts; and at the same time the resulting head folds into a mass marked off from the spine. The like process, variously exhibited in other organs, is meanwhile exhibited by the body as a whole; which becomes integrated somewhat in the same way that an outspread handkerchief and its contents become integrated when its edges are drawn in and fastened to make a bundle.

Kindred changes go on after birth, and continue even up to old age. In man, that solidification of the bony frame-work which, during childhood, is seen in the coalescence of portions of the same bone ossified from different centres, is afterward seen in the coalescence of bones that were originally distinct. The appendages of the vertebrae join with the vertebral centres to which they belong: a change not completed until toward thirty. At the same time the epiphyses, formed separately from the main bodies of their respective bones, have their cartilaginous connections turned into osseous ones—are fused to the masses beneath them. The component vertebrae of the sacrum, which remain separate till about the sixteenth year, then begin to unite; and in ten or a dozen years more their union is complete. Still later occurs the junction of the coccygeal vertebrae; and there are some other bony unions which remain unfinished unless advanced age is reached. To which add that the increase of density, going on throughout the tissues at large during life, is the formation of a more fully integrated substance.

The species of change thus illustrated, may be traced

in all animals. That mode of it which consists in the union of similar parts originally separate, has been described by Milne-Edwards and others, as exhibited in various of the *Invertebrata;* though it does not seem to have been included by them as an essential trait of organic development. We shall, however, see that local integration is an all-important part of this process, when we find it not only in the successive stages passed through by every embryo, but also in ascending from the lower creatures to the higher. As manifested in either way, it goes on both longitudinally and transversely; under which different forms we may conveniently consider it.

Of *longitudinal integration,* the sub-kingdom *Annulosa* supplies abundant examples. Its lower members, such as worms and next to them myriapods, are mostly characterized by the great numbers of segments; reaching in some cases to several hundreds. But in the higher divisions—crustaceans, insects, and arachnids—this number is reduced to twenty-two, thirteen, or even fewer; while, accompanying the reduction, there is a shortening or integration of the whole body, reaching its extreme in the crab and the spider. The significance of these contrasts, as bearing on the doctrine of Evolution will be clear when it is observed that they are parallel to those which arise during the development of individual annulose animals. The head and thorax of the lobster form one compact box, made by the union of a number of segments which in the embryo were separable. Similarly, the butterfly shows us segments so much more closely united than they were in the caterpillar, as to be, some of them, no longer distinguishable from one another. The *Vertebrata* again, throughout their successively higher classes, furnish like instances of longitudinal union. In most fishes and in limbless reptiles none of the vertebrae coalesce. In most mammals and in birds, a variable number of vertebrae become fused to form the

sacrum; and in the higher apes and in man the caudal vertebrae also lose their separate individualities in a single *os coccygis*. That which we may distinguish as *transverse integration* is well illustrated among the *Annulosa* in the development of the nervous system. Leaving out those most degraded forms which do not present distinct ganglia, we find that the lower annulose animals, in common with the larvae of the higher, are severally characterized by a double chain of ganglia running from end to end of the body; while in the more perfectly formed annulose animals the two chains unite into a single chain. Mr. Newport has described the course of this in insects; and by Rathke it has been traced in crustaceans. During the early stages of the common cray-fish, there is a pair of separate ganglia to each ring. Of the fourteen pairs belonging to the head and thorax, the three pairs in advance of the mouth consolidate to form the cephalic ganglion or brain. Meanwhile, of the remainder, the first six pairs severally unite in the median line, while the rest remain more or less separate. Of these six double ganglia thus formed, the anterior four coalesce into one mass; the remaining two coalesce into another mass, and then these two masses coalesce. Here longitudinal and transverse integration go on simultaneously, and in the highest crustaceans they are both carried still further. The *Vertebrata* exhibit transverse integration in the development of the generative system. The lowest mammals—the *Monotremata*—in common with birds, to which they are in many respects allied, have oviducts which toward their lower extremities are dilated into cavities, each imperfectly performing the functions of a uterus. "In the *Marsupialia* there is a closer approximation of the two lateral sets of organs on the median line; for the oviducts converge toward one another and meet (without coalescing) on the median line; so that their uterine dilations are in contact with

each other, forming a true 'double uterus.' . . . As we ascend the series of 'placental' mammals we find the lateral coalesence becoming more and more complete. . . . In many of the *Rodentia* the uterus still remains completely divided into two lateral halves; whilst in others these coalesce at their lower portions, forming a rudiment of the true 'body' of the uterus in the human subject. This part increases at the expense of the lateral 'cornua' in the higher herbivora and carnivora; but even in the lower quadrumana the uterus is somewhat cleft at its summit.''

Under the head of organic integrations, there remain to be noted another class of illustrations. Whether the *Annulosa* referred to above are or are not originally compound animals, it is unquestionable that there are compound animals among other classes of invertebrates: integration is displayed not within the limits of an individual only but by the union of many individuals. The *Salpidae* are composite creatures having the shape of chains joined more or less permanently; and *Pyrosoma* shows us a large number united into a cylinder. Moreover in the *Batryllidae* the merging of the individualities goes so far that instead of having separate skins they are enclosed within a common skin. Among the *Caelenterata* integration produces half-fused colonies of types unlike these. There are the branched *Hydrogoa* in which many individuals form an aggregate in such a way as to have a common system of nutrition, while some of them undertake special functions; and much the same may be said of those compound *Actinoza* which are imbedded in the calcareous frameworks we know as corals. And then in certain pelagic types, grouped as *Siphonophora*, the united individuals, in some cases alike, are in other cases severally transformed in adaptation to various functions; so that the component individuals, assuming the characters of different organs become practically combined into a single organism.

From this kind of integration we pass to a kind in which the individuals are not physically united but simply associated—are integrated only by their mutual dependence. We may set down two kinds—those which occur within the species, and those which occur between members of different species.

More or less of the gregarious tendency is common among animals; and when it is marked, there is, in addition to simple aggregation, some degree of combination. Creatures that hunt in packs, or that have sentinels, or that are governed by leaders, form bodies partially united by coöperation. Among polygamous mammals and birds this mutual dependence is closer; and the social insects show us still more consolidated assemblages: some of them having their members so united that they cannot live independently.

How organisms in their totality are mutually dependent, and in that sense integrated, we shall see on remembering—first, that while all animals live directly or indirectly on plants, plants utilize the carbon dioxide excreted by animals; second, that among animals the flesh-eaters cannot exist without the plant-eaters; third, that a large proportion of plants can continue their respective races only by the help of insects, and that in many cases particular plants need particular insects. Without detailing the more complex connections, which Mr. Darwin has so beautifully illustrated, it will suffice to say that the Flora and Fauna in each habitat, constitute an aggregate so far integrated that many of its species die out if placed amid the plants and animals of another habitat. And this integration, too, increases as organic evolution advances.

The phenomena set down in the foregoing paragraph introduce us to others of a higher order, with which they ought, in strictness, to be grouped—phenomena which we may term superorganic. Inorganic bodies present us with

certain facts. Additional facts, mostly of a more involved kind, are presented by organic bodies. There remain yet further facts, not presented by any organic body taken singly, but which result from the actions of aggregated organic bodies. Though phenomena of this order are, as we see, foreshadowed among inferior organisms, they become so conspicuous in mankind as socially united, that practically we may consider them to commence here.

In the social organism integrative changes are abundantly exemplified. Uncivilized societies display them when wandering families, such as those of the Bushmen, join into tribes of considerable size. A further progress in mass results from the subjugation of weak tribes by strong ones; and in the subordination of their respective chiefs to the conquering chief. Such combinations which, among aboriginal races, are being continually formed and continually broken up, become, among superior races, relatively permanent. If we trace the stages through which our own society, or any adjacent one, has passed, we see this unification from time to time repeated on a larger scale and gaining in stability. The consequent establishment of groups of vassals bound to their respective lords; the subsequent subordination of groups of inferior nobles to dukes or earls; and the still later growth of the kingly power over dukes and earls; are so many instances of increasing consolidation. This process slowly completes itself by destroying the original lines of demarcation. And of the European nations it may be further remarked, that in the tendency to form alliances, in the restraining influences exercised by the several governments over one another, in the system of settling international arrangements by congresses, as well as in the weakening of commercial barriers and the increasing facilities of communication, we see the beginnings of a European federation—a still larger integration than any now established.

But it is not only in these external unions of groups with groups, and of the compound groups with one another, that the general law is exemplified. It is exemplified also in unions that take place internally, as the groups become better organized. There are two orders of these, broadly distinguishable as regulative and operative.

A civilized society is made unlike a savage tribe by the establishment of regulative classes—governmental, administrative, military, ecclesiastical, legal, etc., which, while they severally have their bonds of union, constituting them sub-classes, are also held together as a general class by a certain community of privileges, of blood, of education, of intercourse. In some societies, fully developed after their particular types, this consolidation into castes and this union among the upper castes by separation from the lower, eventually grow very decided; to be afterward rendered less decided, only in cases of social metamorphosis caused by the industrial *régime*.

The integrations seen throughout the operative or industrial organization, later in origin, are not merely of this indirect kind, but they are also direct—they show us physical approach. We have integrations consequent on the simple growth of adjacent parts performing like functions; as, for instance, the junction of Manchester with its calico-weaving suburbs. We have other integrations that arise when, out of several places producing a particular commodity, one gaining more and more of the business, draws to it masters and workers, and leaves the other places to dwindle; as witness the growth of the Yorkshire cloth districts at the expense of those in the west of England; or the absorption by Staffordshire of the pottery manufacture, and the consequent decay of establishments at Derby and elsewhere. We have those more special integrations that arise within the same city; whence result the concentration of corn-merchants about Mark Lane, of civil

engineers in Great George street, of bankers in the centre of the city. Industrial integrations which consist, not in the approximation or fusion of parts, but in the establishment of centres of connection, are shown in the Bankers' clearing-house and the railway clearing-house. While of yet another species are those unions which bring into relation dispersed citizens who are occupied in like ways; as traders are brought by the Exchange, and as are professional men by institutes like those of Civil Engineers, Architects, etc.

2. The Meaning of Evolution

The following passage has been selected as one of the most significant philosophic interpretations of the problem: [2]

From this point of view, the general considerations we have presented concerning the evolution of life will be cleared up and completed. We will distinguish more sharply what is accidental from what is essential in this evolution.

The impetus of life, of which we are speaking, consists in a need of creation. It cannot create absolutely, because it is confronted with matter, that is to say with the movement that is the inverse of its own. But it seizes upon this matter, which is necessity itself, and strives to introduce into it the largest possible amount of indetermination and liberty. How does it go to work?

An animal high in the scale may be represented in a general way, we said, as a sensori-motor nervous system imposed on digestive, respiratory, circulatory systems, etc. The function of these latter is to cleanse, repair and protect the nervous system, to make it as independent as possible of external circumstances, but, above all, to furnish

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[2] Bergson, H., *Creative Evolution*, Mitchell's translation, pp. 251–261 (Henry Holt & Co., 1913); reprinted by permission of the publishers. *Creative Evolution* was first published at Paris in 1907.

it with energy to be expended in movements. The increasing complexity of the organism is therefore due theoretically (in spite of innumerable exceptions due to accidents of evolution) to the necessity of complexity in the nervous system. No doubt, each complication of any part of the organism involves many others in addition, because this part itself must live, and every change in one point of the body reverberates, as it were, throughout. The complication may therefore go on to infinity in all directions; but it is the complication of the nervous system which conditions the others in right, if not always in fact. Now, in what does the progress of the nervous system itself consist? In a simultaneous development of automatic activity and of voluntary activity, the first furnishing the second with an appropriate instrument. Thus, in an organism such as ours, a considerable number of motor mechanisms are set up in the medulla and in the spinal cord, awaiting only a signal to release the corresponding act: the will is employed, in some cases, in setting up the mechanism itself, and in the others in choosing the mechanisms to be released, the manner of combining them and the moment of releasing them. The will of an animal is the more effective and the more intense, the greater the number of the mechanisms it can choose from, the more complicated the switchboard on which all the motor paths cross, or in other words, the more developed its brain. Thus, the progress of the nervous system assures to the act increasing precision, increasing variety, increasing efficiency and independence. The organism behaves more and more like a machine for action, which reconstructs itself entirely for every new act, as if it were made of india-rubber and could, at any moment, change the shape of all its parts. But, prior to the nervous system, prior even to the organism properly so called, already in the undifferentiated mass of the amoeba, this essential property of animal life is

found. The amoeba deforms itself in varying directions; its entire mass does what the differentiation of parts will localize in a sensori-motor system in the developed animal. Doing it only in a rudimentary manner, it is dispensed from the complexity of the higher organisms; there is no need here of the auxiliary elements that pass on to motor elements the energy to expend; the animal moves as a whole, and, as a whole also, procures energy by means of the organic substances it assimilates. Thus, whether low or high in the animal scale, we always find that animal life consists (1) in procuring a provision of energy; (2) in expending it, by means of a matter as supple as possible, in directions variable and unforeseen.

Now, whence comes the energy? From the ingested food, for food is a kind of explosive, which needs only the spark to discharge the energy it stores. Who has made this explosive? The food may be the flesh of an animal nourished on animals and so on; but, in the end it is to the vegetable we always come back. Vegetables alone gather in the solar energy, and the animals do but borrow it from them, either directly or by some passing it on to others. How then has the plant stored up this energy? Chiefly by the chlorophyllian function, a chemicism *sui generis* of which we do not possess the key, and which is probably unlike that of our laboratories. The process consists in using solar energy to fix the carbon of carbonic acid, and thereby to store this energy as we should store that of a water-carrier by employing him to fill an elevated reservoir: the water, once brought up, can set in motion a mill or a turbine, as we will and when we will. Each atom of carbon fixed represents something like the elevation of the weight of water, or like the stretching of an elastic thread uniting the carbon to the oxygen in the carbonic acid. The elastic is relaxed, the weight falls back again, in short the energy held in reserve is restored, when, by

a simple release, the carbon is permitted to rejoin its oxygen.

So that all life, animal and vegetable, seems in its essence like an effort to accumulate energy and then to let it flow into flexible channels, changeable in shape, at the end of which it will accomplish infinitely varied kinds of work. That is what the *vital impetus,* passing through matter, would fain do all at once. It would succeed, no doubt, if its power were unlimited, or if some reinforcement could come to it from without. But the impetus is finite, and it has been given once for all. It cannot overcome all obstacles. The movement it starts is sometimes turned aside, sometimes divided, always opposed; and the evolution of the organized world is the unrolling of this conflict. The first great scission that had to be effected was that of the two kingdoms, vegetable and animal, which thus happen to be mutually complementary, without, however, any agreement having been made between them. It is not for the animal that the plant accumulates energy, it is for its own consumption; but its expenditure on itself is less discontinuous, and less concentrated, and therefore less efficacious, than was required by the initial impetus of life, essentially directed toward free actions: the same organism could not with equal force sustain the two functions at once, of gradual storage and sudden use. Of themselves, therefore, and without any external intervention, simply by the effect of the duality of the tendency involved in the original impetus and of the resistance opposed by matter to this impetus, the organisms leaned some in the first direction, others in the second. To this scission there succeeded many others. Hence the diverging lines of evolution, at least what is essential in them. But we must take into account retrogressions, arrests, accidents of every kind. And we must remember, above all, that each species behaves as if the general movement of

life stopped at it instead of passing though it. It thinks only of itself, it lives only for itself. Hence the numberless struggles that we behold in nature. Hence a discord, striking and terrible, but for which the original principle of life must not be held responsible.

The part played by contingency in evolution is therefore great. Contingent, generally, are the forms adopted, or rather invented. Contingent, relative to the obstacles encountered in a given place and at a given moment, is the dissociation of the primordial tendency into such and such complementary tendencies which create divergent lines of evolution. Contingent the arrests and set-backs; contingent, in large measure, the adaptations. Two things only are necessary: (1) a gradual accumulation of energy; (2) an elastic canalization of this energy in variable and indeterminable directions, at the end of which are free acts.

This twofold result has been obtained in a particular way on our planet. But it might have been obtained by entirely different means. It was not necessary that life should fix its choice mainly upon the carbon of carbonic acid. What was essential for it was to store solar energy; but, instead of asking the sun to separate, for instance, atoms of oxygen and carbon, it might (theoretically at least, and, apart from practical difficulties possibly insurmountable) have put forth other chemical elements, which would then have had to be associated or dissociated by entirely different physical means. And if the element characteristic of the substances that supply energy to the organism had been other than carbon, the element characteristic of the plastic substances would probably have been other than nitrogen, and the chemistry of living bodies would then have been radically different from what it is. The result would have been living forms without any analogy to those we know, whose anatomy would have been

different, whose physiology also would have been different. Alone, the sensori-motor function would have been preserved, if not in its mechanism, at least in its effects. It is therefore probable that life goes on in other planets, in other solar systems also, under forms of which we have no idea, in physical conditions to which it seems to us, from the point of view of our physiology, to be absolutely opposed. If its essential aim is to catch up usable energy in order to expend it in explosive actions, it probably chooses, in each solar system and on each planet, as it does on the earth, the fittest means to get this result in the circumstances with which it is confronted. That is at least what reasoning by analogy leads to, and we use analogy the wrong way when we declare life to be impossible wherever the circumstances with which it is confronted are other than those on the earth. The truth is that life is possible wherever energy descends the incline indicated by Carnot's law and where a cause of inverse direction can retard the descent—that is to say, probably, in all the worlds suspended from all the stars. We go further: it is not even necessary that life should be concentrated and determined in organisms properly so called, that is, in definite bodies presenting to the flow of energy ready-made though elastic canals. It can be conceived (although it can hardly be imagined) that energy might be saved up, and then expended on varying lines running across a matter not yet solidified. Every essential of life would still be there, since there would still be slow accumulation of energy and sudden release. There would hardly be more difference between this vitality, vague and formless, and the definite vitality we know, than there is, in our psychical life, between the state of dream and the state of waking. Such may have been the condition of life in our nebula before the condensation of matter was complete, if it be true that life springs forward at the very moment when,

as the effect of an inverse movement, the nebular matter appears.

It is therefore conceivable that life might have assumed a totally different outward appearance and designed forms very different from those we know. With another chemical substratum, in other physical conditions, the impulsion would have remained the same, but it would have split up very differently in course of progress; and the whole would have traveled another road—whether shorter or longer who can tell? In any case, in the entire series of living beings no term would have been what it now is. Now, was it necessary that there should be a series, or terms? Why should not the unique impetus have been impressed on a unique body, which might have gone on evolving?

This question arises, no doubt, from the comparison of life to an impetus. And it must be compared to an impetus, because no image borrowed from the physical world can give more nearly the idea of it. But it is only an image. In reality, life is of the psychological order, and it is of the essence of the psychical to enfold a confused plurality of interpenetrating terms. In space, and in space only, is distinct multiplicity possible: a point is absolutely external to another point. But pure and empty unity, also, is met with only in space; it is that of a mathematical point. Abstract unity and abstract multiplicity are determinations of space or categories of the understanding, whichever we will, spatiality and intellectuality being molded on each other. But what is of psychical nature cannot entirely correspond with space, nor enter perfectly into the categories of the understanding. Is my own person, at a given moment, one or manifold? If I declare it one, inner voices arise and protest—those of the sensations, feelings, ideas, among which my individuality is distributed. But, if I make it distinctly manifold, my consciousness rebels quite as strongly; it affirms that my sensations,

my feelings, my thoughts are abstractions which I effect on myself, and that each of my states implies all the others. I am then (we must adopt the language of the understanding, since only the understanding has language) a unity that is multiple and a multiplicity that is one; but unity and multiplicity are only views of my personality taken by an understanding that directs its categories at me; I enter neither into one nor into the other nor into both at once, although both, united, may give a fair imitation of the mutual interpenetration and continuity that I find at the base of my own self. Such is my inner life, and such also is life in general. While, in its contact with matter, life is comparable to an impulsion or an impetus, regarded in itself it is an immensity of potentiality, a mutual encroachment of thousands of tendencies which nevertheless are "thousands and thousands" only when once regarded as outside of each other, that is, when spatialized. Contact with matter is what determines this dissociation. Matter divides actually what was but potentially manifold; and, in this sense, individuation is in part the work of matter, in part the result of life's own inclination. Thus, a poetic sentiment, which bursts into distinct verses, lines and words, may be said to have already contained this multiplicity of individuated elements, and yet, in fact, it is the materiality of language that creates it.

But through the words, lines and verses runs the simple inspiration which is the whole poem. So, among the dissociated individuals, one life goes on moving: everywhere the tendency to individualize is opposed and at the same time completed by an antagonistic and complementary tendency to associate, as if the manifold unity of life, drawn in the direction of multiplicity, made so much the more effort to withdraw itself on to itself. A part is no sooner detached than it tends to reunite itself, if not to all the rest, at least to what is nearest to it. Hence, through-

out the whole realm of life, a balancing between individuation and association. Individuals join together into society; but the society, as soon as formed, tends to melt the associated individuals into a new organism, so as to become itself an individual, able in its turn to be part and parcel of a new association. At the lowest degree of the scale of organisms we already find veritable associations, microbial colonies, and in these associations, according to a recent work, a tendency to individuate by the constitution of a nucleus. The same tendency is met with again at a higher stage, in the protophytes, which, once having quitted the parent cell by way of division, remain united to each other by the gelatinous substance that surrounds them—also in those protozoa which begin by mingling their pseudopodia and end by welding themselves together. The "colonial" theory of the genesis of higher organisms is well known. The protozoa, consisting of one single cell, are supposed to have formed, by assemblage, aggregates which, relating themselves together in their turn, have given rise to aggregates of aggregates; so organisms more and more complicated, and also more and more differentiated, are born of the association of organisms barely differentiated and elementary. In this extreme form, the theory is open to grave objections: more and more the idea seems to be gaining ground, that polyzoism is an exceptional and abnormal fact. But it is none the less true that things happen *as if* every higher organism was born of an association of cells that have subdivided the work between them. Very probably it is not the cells that have made the individual by means of association; it is rather the individual that has made the cells by means of dissociation. But this itself reveals to us, in the genesis of the individual, a haunting of the social form, as if the individual could develop only on the condition that its substance should be split up into elements having them-

selves an appearance of individuality and united among themselves by an appearance of sociality. There are numerous cases in which nature seems to hesitate between the two forms, and to ask herself if she shall make a society or an individual. The slightest push is enough, then, to make the balance weigh on one side or the other. If we take an infusorian sufficiently large, such as the Stentor, and cut it into two halves each containing a part of the nucleus, each of the two halves will generate an independent Stentor; but if we divide it incompletely, so that a protoplasmic communication is left between the two halves, we shall see them execute, each from its side, corresponding movements: so that in this case it is enough that a thread should be maintained or cut in order that life should affect the social or the individual form. Thus, in rudimentary organisms consisting of a single cell, we already find that the apparent individuality of the whole is the composition of an *undefined* number of potential individualities potentially associated. But, from top to bottom of the series of living beings, the same law is manifested. And it is this that we express when we say that unity and multiplicity are categories of inert matter, that the vital impetus is neither pure unity nor pure multiplicity, and that if the matter to which it communicates itself compels it to choose one of the two, its choice will never be definitive: it will leap from one to the other indefinitely. The evolution of life in the double direction of individuality and association has therefore nothing accidental about it: it is due to the very nature of life.

CHAPTER XXIV

SINGULARISM AND PLURALISM

1. God as Substance

The first part of Spinoza's development of his thesis is to be seen in the following selection, which shows also his method of presentation:[1]

OF GOD

Definitions

1. By *cause of itself* I mean that whose essence involves existence; or, in other words, that whose nature cannot be conceived except as existing.

2. A thing is said to be *finite in its kind* when it can be limited by another of the same nature. For example, a body is called finite because we always conceive another still greater. In the same way one thought is limited by another. But a body cannot be limited by a thought, nor a thought by a body.

3. By *substance* I mean that which is itself, and is conceived by means of itself: that is, that the conception of which does not need to be formed from the conception of any other thing.

4. By *attribute* I mean that which the understanding perceives as constituting the essence of substance.

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[1] Fullerton, G. S., *The Philosophy of Spinoza,* pp. 25–34 (Henry Holt and Company, 1894); reprinted by permission of the publishers. The quotation is from the beginning of the *Ethics.*

For note on Spinoza, see p. 13.

5. By *mode* I mean the modifications of substance: in other words, that which is in and is conceived by means of something else.

6. By *God* I mean a being absolutely infinite: that is, a substance consisting of an infinity of attributes, each one of which expresses an eternal and infinite essence.

Explanation.—I say absolutely infinite, not infinite in its kind; for we can deny an infinity of attributes of anything that is infinite only in its kind. But to the essence of that which is absolutely infinite belongs everything that expresses essence and involves no negation.

7. A thing will be called *free* that exists by the sole necessity of its nature, and is determined to action by itself alone that, on the other hand, which is determined by something else to exist and to act in a definite and determinate way will be called *necessary,* or rather *coerced.*

8. By *eternity* I mean existence itself in so far as it is conceived as following necessarily from the mere definition of an eternal thing.

Explanation.—For such existence, like the essence of a thing, is conceived as an eternal truth; it cannot, therefore, be explained by duration or time, even though duration be conceived as without beginning and without end.

Axioms

1. Everything that is, is either in itself or in something else.

2. That which cannot be conceived by means of something else must be conceived by means of itself.

3. Granted a determinate cause, an effect necessarily follows; conversely, if there be no determinate cause it is impossible for an effect to follow.

4. Knowledge of an effect depends upon and involves knowledge of its cause.

5. Things which have nothing in common cannot be comprehended by means of each other; that is, the conception of the one does not involve the conception of the other.

6. A true idea must agree with its object.

7. If a thing can be conceived as non-existent, its essence does not involve existence.

PROPOSITION 1. *Substance is by nature prior to its modifications.*

Proof.—This is evident from definitions 3 and 5.

PROPOSITION 2. *Two substances with different attributes have nothing in common.*

Proof.—This, too, is evident from definition 3. Each must be in itself and be conceived by means of itself; that is, the conception of the one does not involve the conception of the other.

PROPOSITION 3. *When things have nothing in common, the one cannot be the cause of the other.*

Proof.—If they have nothing in common, then (*axiom* 5) they cannot be comprehended by means of one another, and, hence (*axiom* 4), the one cannot be the cause of the other. Q. E. D.

PROPOSITION 4. *Two or more distinct things are distinguished from each other either by a difference in the attributes of the substances, or by a difference in their modifications.*

Proof.—Everything that is, is either in itself or in something else (*axiom* 1), that is (*defs.* 3 *and* 5), outside of the understanding there is nothing save substances and their modifications. There is, therefore, outside of the understanding, nothing by means of which several things can be distinguished from one another, except substances, or, which is the same thing (*def.* 4), their attributes and their modifications. Q. E. D.

PROPOSITION 5. *There can not be in the universe two or more substances of the same nature, that is, with the same attribute.*

Proof.—Were there several distinct substances, they would have to be distinguished from one another either by a difference in attributes or by a difference in modifications (*by the preceding proposition*). If merely by a difference in attributes, it will be admitted there cannot be more than one with the same attribute. If, on the other hand, one is to be distinguished from another by a difference in modifications, then, since a substance is by nature prior to its modifications (*Prop.* 1), when we lay aside its modifications, and consider it in itself, that is, (*def.* 3 *and axiom* 6), consider it as it is, we cannot conceive it as distinguished from another substance. In other words (*by the preceding proposition*), there cannot be several substances, but only one. Q. E. D.

PROPOSITION 6. *One substance cannot be produced by another substance.*

Proof.—There cannot be in the universe two substances with the same attribute (*by the preceding proposition*), that is (*Prop.* 2), substances that have something in common. Therefore (3), the one cannot be the cause of the other, or, in other words, the one cannot be produced by the other. Q. E. D.

Corollary.—Hence it follows that a substance cannot be produced by any other thing. For there is nothing in the universe except substances and their modifications, as is evident from axiom 1 and defs. 3 and 5. But a substance cannot be produced by a substance (*by the preceding proposition*). Hence a substance cannot be produced by any other thing whatever. Q. E. D.

Another Proof.—This is proved even more readily by a *reductio ad absurdum*. For if a substance could be produced by any other thing, the knowledge of it would have

to depend on a knowledge of its cause (*axiom* 4); hence (*def.* 3) it would not be a substance.

PROPOSITION 7. *It belongs to the nature of a substance to exist.*

Proof.—A substance cannot be produced by any other thing (*by the corollary to the preceding proposition*); it must, therefore, be its own cause, that is (*def.* 1), its essence necessarily involves existence, or, in other words, it belongs to its nature to exist. Q. E. D.

PROPOSITION 8. *Every substance is necessarily infinite.*

Proof.—There does not exist more than one substance with a given attribute (5), and it belongs to the nature of that one to exist (7). It must, therefore, belong to its nature to exist either as finite or as infinite. But not as finite. For (*def.* 2) it would have to be limited by another of the same nature, and this, also, would necessarily have to exist (7). There would, then, be two substances with the same attribute, which is absurd (5). It therefore exists as infinite. Q. E. D.

Scholium 1.—Since finitude is in fact a partial negation, and infinitude an absolute affirmation of the existence of any nature, it follows from prop. 7 alone that every substance must be infinite.

Scholium 2.—No doubt it is difficult for all those who judge of things confusedly and are not accustomed to come to a knowledge of them by means of their first causes, to comprehend the proof of prop. 7; for they make no distinction between the modifications of substances and the substances themselves, nor do they know how things are produced. Hence they ascribe to substances the origin they see proper to natural objects. For those who are ignorant of the true causes of things confuse all things, and without repugnance fancy trees talking as well as men, and that men are formed from stones as well as from seed, and they imagine that any kind of thing can be

changed into any other. In the same way those who confuse the divine nature with the human easily ascribe to God human emotions, especially as long as they are further ignorant how the emotions are produced in the mind. But if men would consider attentively the nature of substance, they would never doubt the truth of prop. 7; nay, rather they would all accept this proposition as an axiom and class it among the common notions. For by substance they would mean that which is in itself and is conceived by means of itself; in other words, that the knowledge of which does not presuppose the knowledge of any other thing. By modification, on the other hand, they would mean that which is in something else, and whose conception is formed from the conception of the thing in which it is. For this reason we can have true ideas of non-existent modifications, since, although they do not actually exist outside of the mind, yet their essence is included in something else in such a way that they can be conceived by that. But since substances are conceived by means of themselves, their truth can have no being outside of the mind except in themselves. Hence, should anyone say that he has a clear and distinct, that is, a true idea of a substance, and yet doubts whether such a substance exists, it would be absolutely the same as saying that he has a true idea and yet is not certain that it is not false! This will be plain to anyone who gives the matter enough attention. Or if one maintains that a substance is created, he thereby maintains that a false idea has been made true, than which really nothing more absurd can be conceived. We are, therefore, forced to confess that the existence of a substance is an eternal truth, just as is its essence. Hence we are able to prove in another way that there cannot be more than one substance with a given nature, and I have thought it worth while to set forth the proof here. But to do this in a methodical way, I must note—*First,*

that the true definition of a thing neither involves nor expresses anything except the nature of the thing defined. Whence it follows in the *second* place, that no definition either involves or expresses a certain definite number of individuals, seeing that it expresses nothing but the nature of the thing defined. For example, the definition of the triangle expresses nothing but just the nature of the triangle, and not a certain definite number of triangles. I must note in the *third* place that every existing thing necessarily has some definite cause, by reason of which it exists. And finally in the *fourth* place that this cause, by reason of which anything exists, must either be contained in the very nature and definition of the existing thing (*for the reason, of course, that it belongs to the nature of such a thing to exist*), or it must be outside of it. Granted these points, it follows that if there exist in the world some definite number of individuals, there must necessarily be a cause why those individuals, and neither more nor less, exist. If, for example, there exist in the universe twenty men (I will suppose, to make the matter clearer, that they exist at the same time, and that no others have ever existed before), it will not be a sufficient explanation of the existence of the twenty men to show the cause of human nature in the abstract; but it will be further necessary to show the cause why twenty exist, and not more nor less; for (*by point third*) there must necessarily be a cause for the existence of each one. But this cause (*by point second and third*) cannot be contained in human nature itself, since the true definition of man does not involve the number twenty. Hence (*by point fourth*) the cause why these twenty men exist, and, consequently, why each one exists, must necessarily be outside of each one. Therefore, the conclusion is unavoidable that everything of such a nature, that several individuals with that nature can exist, must necessarily have an external cause

to bring about their existence. Now since it belongs to the nature of a substance to exist (*by what I have just shown in this scholium*), its definition must involve necessary existence, and hence its existence must be inferred from its mere definition. But from its definition (*as has just been proved from points second and third*) the existence of several substances cannot be inferred. From it, therefore, it follows necessarily that but one of a given nature exists, as was maintained.

PROPOSITION 9. *The more reality or being anything has, the greater the number of its attributes.*

Proof.—This is evident from def. 4.

PROPOSITION 10. *Each attribute of a substance must be conceived by means of itself.*

Proof.—Attribute is that which the understanding perceives as constituting the essence of substance (*def.* 4); therefore (*def.* 3) it must be conceived by means of itself. Q. E. D.

Scholium.—Hence it is evident that although two attributes are conceived as really distinct—that is, the one is conceived without help from the other—yet we cannot thence infer that they constitute two beings, or, in other words, two different substances. For it is of the nature of a substance that each of its attributes is conceived by means of itself; seeing that all the attributes it has have always been in it simultaneously, nor has it been possible for one to be produced by another, but each one expresses the reality, that is, the being of the substance. It is, therefore, far from absurd to ascribe several attributes to one substance; nay, nothing in the world is clearer than that every being must be conceived under some attribute, and that the more reality or being it has, the more attributes has it that express both necessity, that is, eternity, and infinity. Hence nothing can be clearer than that an absolutely infinite being must necessarily be defined (*as*

in def. 6), as a being consisting of an infinity of attributes, each one of which expresses a definite eternal and infinite essence. Should one here ask, by what mark, then, can we distinguish different substances? let him read the propositions that follow, which show that there exists in the universe but a single substance, and that this is absolutely infinite. Hence such a mark would be sought in vain.

PROPOSITION 11. *God, that is, a substance consisting of an infinity of attributes, each one of which expresses an eternal and infinite essence, necessarily exists.*

Proof.—If you deny it, conceive if you can that God does not exist. Then (*axiom* 7) his essence does not involve existence. But this (7) is absurd. Therefore God necessarily exists. Q. E. D.

2. The Absolute

The following is a typical passage from Hegel's *Phenomenology of Mind* suggesting his view of the Absolute: [2]

According to my view, which can justify itself only through the presentation of the whole system, everything depends upon grasping and describing the True not merely as Substance, but also as Subject. It is to be noted at once that Substantiality includes the Universal or the Immediate *of* knowledge itself, as well as that which is Being or Immediacy *for* knowledge. If the conception of God as Substance shocked the age in which this characterization was expressed, the reason therefor lay partly in the instinctive feeling that self-consciousness was therein swallowed up, not preserved; but the contrary view which holds to thinking as mere thinking, Universality as such, in part involves the same simple or undifferentiated, un-

[2] Hegel, *Phenomenology of Mind.* pp. 14–25; translated from the edition of 1832.

For note on Hegel, see p. 14.

moved Substantiality. And if in the third place Thought unites the being of Substance with itself and conceives immediacy or intuition as thought, it is a question whether this intellectual contemplation does not fall back into inert simplicity, and present Reality itself in an unreal manner.

Living Substance is furthermore that Being which is Subject in Truth, or—what amounts to the same thing,—is real in Truth, only in so far as it is the movement of positing itself, or the mediation of its own changes through itself. As subject it is pure, simple negativity, and thereby the sundering of the simple, or the duplication into opposites; and it is again the negation of this inert diversity and of this opposition. Only this self-reinstating identity or the reflection from another into itself—not an *original* unity as such, nor an *immediate* unity, as such,—is the Truth. It is the process of developing itself, the circle which presupposes its end as its goal, takes it as its starting point, and is real only through its development and in its final completion.

The life of God and the divine knowledge may be said to be a disporting of love with itself. This idea indeed sinks to edification and even to silliness if the seriousness, the pain, the patience and labor of the process of negation is overlooked. In itself that life is indeed undisturbed identity and unity with itself, in which there is no distress over difference and estrangement, nor over the overcoming of this estrangement. But this "in itself" is abstract universality in which no account is taken of its disposition to be for itself, and thereby none whatever of the self-movement of Form. If form is described as identical with Essence then it is a misapprehension to hold that knowledge can be satisfied with the thing itself or its essence but do without the form,—that the absolute principle or the absolute vision makes the completion of the first or the development of the second superfluous.

Just because the form is as essential to the essence as the essence is to it, it is not to be understood and expressed as mere essence, that is, as immediate substance, or as pure self-contemplation on the part of the Divine, but equally as form and with all the richness of developed form. Thereby only will it be apprehended and expressed in its actuality.

The True is the Whole. The whole, however, is only the Essence perfecting itself through its development. It must be said of the Absolute that it is essentially result, that only at the end is it what it is in truth. And herein consists its real nature—in being the Actual, Subject, or Self-developing Principle. However paradoxical it may seem that the Absolute is to be conceived as essentially result a little reflection corrects this appearance of contradiction. The origin, principle, or absolute, as it is at first and immediately expressed is only the universal. Just as when I say, "all animals," this expression cannot serve as a science of zoology, so it is evident that the words, "God," "Absolute," "Eternal," etc., do not express all that is included under them. Such words really express only the intuition as immediate. What is more than such a word, even the mere transition to a sentence, contains a change to an Other which must be brought back,—is a process of mediation. This is abhorred, however, as if absolute knowledge is given up through the very fact that more is made of it than merely that it is absolutely nothing and does not exist in the Absolute.

This horror comes, however, in fact from the lack of acquaintance with the nature of mediation and of absolute knowledge itself. For mediation is nothing else than living Identity, or it is reflection into itself, the process of Self's becoming object for itself, pure negativity, or—lowered to its purely abstract level—simple Becoming. The Ego or Becoming in general, this mediation in its

simplicity, is Immediacy coming into being, and is the Immediate itself. It is therefore a misconstruction of reason to exclude reflection from the truth and not to conceive it as a positive aspect of the Absolute. It is what brings the true to its full result, and at the same time overcomes the opposition between it and its own process of becoming; for this process is also simple and not different from the form of truth, in that in the result it appears as simple. Rather it is just this return into simplicity. Although the embryo is in essence a man yet it is not man perfected; in the perfected state he is the full formed reason which has brought itself to what it was potentially. This alone is its actuality. But this result is itself simple immediacy. For it is self-conscious freedom which rests in itself, has not placed its inner opposition to one side, and let it lie there, but has become reconciled to it.

What we have said can be expressed thus: reason is purposive activity. The exalting of so-called Nature over misunderstood thought, and above all the proscription of outer purposiveness has brought the conception of purpose into general discredit. But in line with Aristotle's definition of nature, as purposive, we assert that the goal is the immediate, reposing, unmoved, itself the source of motion; as such it is subject. Its power to move, abstractly taken, is its self-dependent being, or pure negativity. The end is the same as the beginning only for the reason that the beginning is also goal;—or the actual is the same as its concept only for the reason that the immediate as goal contains the self or pure actuality in it. The perfected end or the actual real is movement and process of becoming. But just this restlessness is the nature of the self; and it is identical with that immediacy and simplicity of the beginning because it is the result, that which has returned to itself,—but that which has returned to itself, however, is the self, and the self is identity and simplicity.

The need of representing the Absolute as subject availed itself of the assertion: God is the Eternal, or the Moral World-order, or Love, etc. In such assertions the truth is only baldly posited as subject, not presented as the movement of self-reflection. In a sentence of this kind one begins with the word "God." This by itself is a meaningless sound, a mere name; an added predicate is what tells what he is and constitutes its consummation and meaning; the empty beginning becomes actualized knowledge only in this ending. So far we see no reason why one does not speak merely of the eternal, the moral world-order, etc., or as the ancients did, of pure concepts: "being," "the one," etc., of that which gives the meaning, without prefixing this meaningless sound. But by this word there is indicated just this: that not a being or essence or universal in general, but a being reflected into itself, a subject, is posited. But at the same time this is merely intuited. The subject is presumed as a fixed point, to which, as to their support, the predicates are attached, through a movement which belongs to him who is aware of it, but which is not viewed as belonging to the point itself. Yet through this movement alone could the content be presented as subject. In the manner in which this movement is constituted it can not belong to it; but after the presupposition of that point it can not be constituted otherwise, it can be only external. That presentiment that the Absolute is Subject is therefore not only not the actualization of this concept, but makes it even impossible; for it posits Him as a stationary point, while the reality is self-movement.

Among many sorts of consequences which follow from what has been said this may be emphasized, that knowledge exists and is to be presented only as science or as system; that further a so-called axiom or principle of philosophy, even if it is true, is also false in so far as it

exists only as axiom or principle. It is therefore easy to refute it. The refutation consists in showing its deficiency; but it is deficient because it is only the universal or principle, the beginning. If the refutation is well founded it is taken and developed out of the principle itself, not effected through opposed affirmations and sallies from without. It would therefore really be the agent of development and the means of supplying defects if it did not err in giving attention only to negative effects and in not being aware of progress and result on the positive side also. On the other hand the true positive development of the starting point is at once just as much a negative procedure against it, that is against its one-sided form, when it is merely immediate or mere goal. It can therefore be taken equally well as refutation of that which constitutes the basis of the system, but more correctly is it to be viewed as a revelation that the basis or principle of the system is in fact only its beginning.

That the true is actual only as system, or that Substance is essentially subject, is expressed in the view that represents the Absolute as Spirit,—the loftiest of conceptions, and the one which belongs to recent time and to its religion. The spiritual alone is actual; it is essence or self-existence,—the self-determining and definite, Otherness and Self-existence—and in this determinateness or its otherness yet remaining within itself; or it is in and for itself. It is this being *in and for* itself, however, only *for* us or *in* itself; it is spiritual substance. It must be this also *for* itself, must be knowledge of the spiritual and knowledge of itself as the spiritual, that is, it must be object to itself, but also immediately as object taken up and reflected into itself. It is explicitly revealed only for us and in so far as its spiritual content is begotten through itself; but in so far as it is explicity revealed to itself this self-production, the pure concept, is at the same time

the objective element in it, wherein it has its existence. And in this way in its existence for itself it is its object reflected into itself. The spirit which knows itself thus developed as spirit, is science. Science is its actuality and the realm which it builds for itself in its own element.

Pure self-knowledge by way of what is absolutely "other"—this ether as such—is the very foundation of science or of knowledge in general. Philosophy at the very beginning presupposes or demands that consciousness thrive in this atmosphere. But this element achieves its perfection and illumination only through its process of development. It is pure spirituality, the universal, which has the aspect of simple immediacy;—this Simple, in its existence as such, is the Ground, the Thought, which exists only in spirit. Because this element, this immediacy of spirit, is the Substance of spirit in general, it is the *transfigured essence, i. e.,* reflection which is aware of its own simplicity and immediacy, and it is *immediate Being* which consists in reflection upon self. Science on its part demands of self-consciousness that it have raised itself into this ether, that it may be able to live and actually should live with it and in it. On the contrary the individual has the right to demand that science offer him at least a ladder reaching to this point, and reveal to him this same standpoint in himself. His right is based upon his absolute independence, which knows how to possess this right in every form of his knowledge, for in every one, be it recognized by science or not, and be the content what it will, he, the individual, is the absolute form, that is, he is the immediate certainty of himself, and—if this expression be preferred—thereby unconditioned Being. If the standpoint of "consciousness," which knows objective things in opposition to itself, and itself in opposition to them, amounts in the eyes of science to an alien one (and that in which it knows only itself, even more, as the

very loss of mind), on the other hand the atmosphere of science is to "consciousness" a remote region, in which it no longer finds itself. Each of these two positions appears to the other the reverse of truth. Natural consciousness in committing itself immediately to science is making an attempt, knowing not from what impulse, to walk on its head; the constraint to assume this unaccustomed position and to move about therein is a violence that it is expected to do to itself for which it is unprepared and which seems unnecessary. Let science be in itself what it will, to immediate self-consciousness it presents itself as a perversion, or, since self-consciousness has certainty of itself as the principle of its actuality, since it is external to science, the latter bears the appearance of unreality. Science has therefore to unite this element with itself or rather to show that this element belongs to it and how. As lacking such actuality science is only content, undeveloped, the goal which is still latent, not spirit, but the potential stuff of spirit. This implicit element has to render itself explicit, and become its own object; which means nothing else than that it must establish self-consciousness as one with itself.

This development of science in general, or of knowledge, is what the Phenomenology of Spirit presents. Knowledge as it is at first, or immediate spirit, is spiritless, sensuous consciousness. In order to develop into real knowledge, or to realize the essence of science which is its pure concept itself, it has to work its way through a long course. This development, as it will assume expression in its content and the forms which appear in it, will not be what one understands in the first instance by the bringing of unscientific consciousness to scientific. It will also be something other than laying the foundation of science; —as also something else than confident dogmatism which begins pointblank with absolute knowledge, and is done

with other standpoints, in merely explaining that it proposes to take no notice of them.

The task of leading the individual from his undeveloped state to the state of knowledge, was to be taken in its general sense, and the general individual, self-conscious spirit, to be observed in its development. As concerns the relation of the two every factor shows itself in the general individual as it gains concrete form and peculiar figure. The particular individual is unperfected spirit, a concrete form, in whose whole existence one type of determinateness is sovereign, and in which others are present only in blurred outlines. In the mind which stands on a higher level than another the lower concrete existence has sunk to a subordinate factor; what was previously an independent thing is now only a trace; its form has been absorbed and has become a mere bit of shading. The individual whose substance is the higher mind traverses this outgrown stage in the manner in which one who is taking up a higher science, reviews the elementary knowledge which he acquired long ago, in order to recall its content to his mind. He recalls this without having any interest in and without lingering over it. With regard to content each finite mind has also to pass through the stages of development of the universal mind, but it traverses them as forms already laid aside by the spirit, as steps in a path that is already finished and leveled. So we see with respect to intellectual attainments that that which in earlier ages occupied the mature spirit of man has sunk down to common information, drill practice, and even games of boyhood; and we shall recognize in the stages of educational progress the history of the civilization of the world as it were sketched in hasty outline. This past existence is the already appropriated possession of the general mind, which constitutes the substance of the individual and, as it appears externally to him, his inorganic

nature. Education in this respect viewed from the position of the individual consists in mastering what is ready to hand, assimilating its inorganic nature and taking it up into full possession. This, however, from the standpoint of the general mind as substance, is nothing but its gaining of self-consciousness, effecting its own process, and reflection into itself.

Science presents this movement of culture both in its fullness and its necessity as that which has already sunken down to the level of mere part and property of the Spirit in the course of its formation. The final goal is the insight of the Spirit into what knowledge is. Impatience demands the impossible, that is the attainment of the end without the means. On the one hand this long journey must be endured, for every factor is necessary;—on the other hand one should linger with each stage, for each is itself an individual, total form, and is seen in its absoluteness only in so far as its determinateness as whole or concrete, or the whole in this peculiar determinate form, is taken into consideration. Because the substance of the individual, because even the World Spirit, has had the patience to go through these forms in the long stretch of time, and to undertake the vast labor of World History, in which it gave to each form the fullest amount of itself which it was capable of receiving, and because through nothing less could it attain the consciousness of itself, neither can an individual really comprehend its own substance with less effort. Still, it has at once less trouble because potentially this is accomplished; the content is an actuality now reduced to potentiality, its immediacy having been overcome; the formative process has been abbreviated to a simple conceptual description. As already an object of thought the content has become a possession of Substance; existence is not to be turned back into its undeveloped form; that which is no more primitive, nor on

the low level of mere existence, but rather now potentia in memory only, is to be transformed into object of ful consciousness. The manner in which this is done is to b given in more detail.

What the Whole is spared at the point at which we her take up this movement is the transcending of mere exist ence; what is still left, however, and needs higher trans formation, is our common ideas and familiar conceptions Existence which has been taken up into substance i through that first negation transferred into the sphere o the Self only on the level of immediacy. This possessio gained by it has therefore still the same character of un comprehended immediacy, of calm indifference, as mer existence itself, and has thus passed over only into sens imagery. Thereupon it has become a familiar thing, suc a thing as the living mind is done with, wherein its ac tivity and consequently its interest no longer lies. If th activity which does away with mere existence itself i only the movement of the particular spirit which does no comprehend itself, on the contrary knowledge is directe against the sensory image which has hereby come int existence, against this mere familiarity; it is activity o the Universal Self, and the interest of Thought.

3. Pluralism versus Monism

James's contrast of the two views with preference of the plura istic doctrine is set forth in the following well-known pages: [3]

For monism the world is no collection, but one great all inclusive fact outside of which is nothing—nothing is it only alternative. When the monism is idealistic, this all enveloping fact is represented as an absolute mind tha makes the partial facts by thinking them, just as we mak objects in a dream by dreaming them, or personages in

[3] James, W., *A Pluralistic Universe*, pp. 36–40 (Longmans, Gree and Company, 1909); reprinted by permission of the publishers.

story by imagining them. To *be,* on this scheme, is, on the part of a finite thing, to be an object for the absolute; and on the part of the absolute it is to be the thinker of that assemblage of objects. If we use the word "content" here, we see that the absolute and the world have an identical content. The absolute is nothing but the knowledge of those objects; the objects are nothing but what the absolute knows. The world and the all-thinker thus compenetrate and soak each other up without residuum. They are but two names for the same identical material, considered now from the subjective, and now from the objective point of view—gedanke and gedachtes, as we would say if we were Germans. We philosophers naturally form part of the material, on the monistic scheme. The absolute makes us by thinking us, and if we are ourselves enlightened enough to be believers in the absolute, one may then say that our philosophizing is one of the ways in which the absolute is conscious of itself. This is the full pantheistic scheme, the *identitätsphilosophie,* the immanence of God in his creation, a conception sublime from its tremendous unity. And yet that unity is incomplete, as closer examination will show.

The absolute and the world are one fact, I said, when materially considered. Our philosophy, for example, is not numerically distinct from the absolute's own knowledge of itself, not a duplicate and copy of it, it is part of that very knowledge, is numerically identical with as much of it as our thought covers. The absolute just *is* our philosophy, along with everything else that is known, in act of knowing which (to use the words of my gifted absolutist colleague Royce) it forms in its wholeness one luminously transparent conscious moment.

But one as we are in this material sense with the absolute substance, that being only the whole of us, and we only the parts of it, yet in a formal sense something like

a pluralism breaks out. When we speak of the absolute we *take* the one universal known material collectively or integrally; when we speak of its objects, of our finite selves, etc., we *take* that same identical material distributively and separately. But what is the use of a thing's *being* only once if it can be *taken* twice over, and if being taken in different ways makes different things true of it? As the absolute takes me, for example, I appear *with* everything else in its field of perfect knowledge. As I take myself, I appear *without* most other things in my field of relative ignorance. And practical differences result from its knowledge and my ignorance. Ignorance breeds mistake, curiosity, misfortune, pain, for me; I suffer those consequences. The absolute knows of those things, of course, for it knows me and my suffering, but it doesn't itself suffer. It can't be ignorant, for simultaneous with its knowledge of each question goes its knowledge of each answer. It can't be patient, for it has to wait for nothing, having everything at once in its possession. It can't be surprised; it can't be guilty. No attribute connected with succession can be applied to it, for it is all at once and wholly what it is, "with the unity of a single instant," and succession is not of it but in it, for we are continually told that it is "timeless."

Things true of the world in its finite aspects, then are not true of it in its infinite capacity. *Qua* finite and plural its accounts of itself to itself are different from what its account to itself *qua* infinite and one must be.

With this radical discrepancy between the absolute and the relative points of view, it seems to me that almost as great a bar to intimacy between the divine and the human breaks out in pantheism as that which we found in monarchical theism, and hoped that pantheism might not show. We humans are incurably rooted in the temporal point of view. The eternal's ways are utterly unlike

our ways. "Let us imitate the All," said the original prospectus of that admirable Chicago quarterly called the "Monist." As if we could, either in thought or conduct! We are invincibly parts, let us talk as we will, and must always apprehend the absolute as if it were a foreign being. If what I mean by this is not wholly clear to you at this point, it ought to grow clearer as my lectures proceed.

It[4] is curious how little countenance radical pluralism has ever had from philosophers. Whether materialistically or spiritualistically minded, philosophers have always aimed at cleaning up the litter with which the world apparently is filled. They have substituted economical and orderly conceptions for the first sensible tangle; and whether these were morally elevated or only intellectually neat, they were at any rate always aesthetically pure and definite, and aimed at ascribing to the world something clean and intellectual in the way of inner structure. As compared with all these rationalizing pictures, the pluralistic empiricism which I profess offers but a sorry appearance. It is a turbid, muddled, gothic sort of an affair, without a sweeping outline and with little pictorial nobility. Those of you who are accustomed to the classical construction of reality may be excused if your first reaction upon it be absolute contempt—a shrug of the shoulders as if such ideas were unworthy of explicit refutation. But one must have lived some time with a system to appreciate its merits. Perhaps a little more familiarity may mitigate your first surprise at such a programme as I offer.

First, one word more than what I said last time about the relative foreignness of the divine principle in the philosophy of the absolute. Those of you who have read the

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[4] *Ibid.*, pp. 45–50.

last two chapters of Mr. Bradley's wonderful book, "Appearance and Reality," will remember what an elaborately foreign aspect *his* absolute is finally made to assume. It is neither intelligence nor will, neither a self nor a collection of selves, neither truthful, good, nor beautiful, as we understand these terms. It is, in short, a metaphysical monster, all that we are permitted to say of it being that whatever it is, it is at any rate *worth* more (worth more to itself, that is) than if any eulogistic adjectives of ours applied to it. It is us, and all other appearances, but none of us *as such,* for in it we are all "transmuted," and its own assuchness is of another denomination altogether.

Spinoza was the first great absolutist, and the impossibility of being intimate with *his* God is universally recognized. *Quatenus infinitus est* he is other than what he is *quatenus humanam mentem constituit.* Spinoza's philosophy has been rightly said to be worked by the word quatenus. Conjunctions, prepositions, and adverbs play indeed the vital part in all philosophies; and in contemporary idealism the words "as" and "qua" bear the burden of reconciling metaphysical unity with phenomenal diversity. Quâ absolute the world is one and perfect, quâ relative it is many and faulty, yet it is identically the self-same world—instead of talking of it as many facts, we call it one fact in many aspects.

As absolute, then, or *sub specie eternitatis,* or *quatenus infinitus est,* the world repels our sympathy because it has no history. *As such,* the absolute neither acts nor suffers, nor loves nor hates; it has no needs, desires, or aspirations, no failures or successes, friends or enemies, victories or defeats. All such things pertain to the world quâ relative, in which our finite experiences lie, and whose vicissitudes alone have power to arouse our interest. What boots it to tell me that the absolute way is the true

way, and to exhort me, as Emerson says, to lift mine eye up to its style, and manners of the sky, if the feat is impossible by definition? I am finite once for all, and all the categories of my sympathy are knit up with the finite world *as such,* and with things which have a history. "Aus dieser erde quellen meine freuden, unde ihre sonne scheinet meinen leiden." I have neither eyes nor ears nor heart nor mind for anything of an opposite description, and the stagnant felicity of the absolute's own perfection moves me as little as I move it. If we were *readers* only of the cosmic novel, things would be different: we should then share the author's point of view and recognize villains to be as essential as heroes in the plot. But we are not the readers but the very personages of the world-drama. In your own eyes each of you here is its hero, and the villains are your respective friends or enemies. The tale which the absolute reader finds so perfect, we spoil for one another through our several vital identifications with the destinies of the particular personages involved.

The doctrine on which the absolutists lay most stress is the absolute's "timeless" character. For pluralists, on the other hand, time remains as real as anything, and nothing in the universe is great or static or eternal enough not to have some territory. But the world that each of us feels most intimately at home with is that of beings with histories that play into our history, whom we can help in their vicissitudes even as they help us in ours. This satisfaction the absolute denies us; we can neither help nor hinder it, for it stands outside of history. It surely is a merit in a philosophy to make the very life we lead seem real and earnest. Pluralism, in exorcising the absolute, exorcises the great de-realizer of the only life we are at home in, and thus redeems the nature of reality from essential foreignness. Every end, reason, motive, object of

desire or aversion, ground of sorrow or joy that we feel is in the world of finite multifariousness, for only in that world does anything really happen, only there do events come to pass.

How[5] often have I been replied to, when expressing doubts of the logical necessity of the absolute, of flying to the opposite extreme: "But surely, SURELY there must be *some* connection among things!" As if I must necessarily be an uncontrolled monomaniac insanely denying any connection whatever. The whole question revolves in very truth about the word "some." Radical empiricism and pluralism stand out for the legitimacy of the notion of *some:* each part of the world is in some ways connected, in some other ways not connected with its other parts, and the ways can be discriminated, for many of them are obvious, and their differences are obvious to view. Absolutism, on its side, seems to hold that "some" is a category ruinously infected with self-contradictoriness, and that the only categories inwardly consistent and therefore pertinent to reality are "all" and "none."

The question runs into the still more general one with which Mr. Bradley and later writers of the monistic school have made us abundantly familiar—the question, namely, whether all the relations with other things, possible to a being, are preincluded in its intrinsic nature and enter into its essence, or whether, in respect to some of these relations, it can *be* without reference to them, and, if it ever does enter into them, do so adventitiously and as it were by an after-thought. This is the great question as to whether "external" relations can exist. They seem to, undoubtedly. My manuscript, for example, is "on" the desk. The relation of being "on" doesn't seem to implicate or involve in any way the inner meaning of the manu-

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[5] *Ibid.*, pp. 78–81.

script or the inner structure of the desk—these objects engage in it only by their outsides, it seems only a temporary accident in their respective histories. Moreover, the "on" fails to appear to our senses as one of those unintelligible "betweens" that have to be separately hooked on the terms they pretend to connect. All this innocent sense-appearance, however, we are told, cannot pass muster in the eyes of reason. It is a tissue of self-contradiction which only the complete absorption of the desk and the manuscript into the higher unity of a more absolute reality can overcome.

The reasoning by which this conclusion is supported is too subtle and complicated to be properly dealt with in a public lecture, and you will thank me for not inviting you to consider it at all. I feel the more free to pass it by now as I think that the cursory account of the absolutistic attitude which I have already given is sufficient for our present purpose, and that my own verdict on the philosophy of the absolute as "not proven"—please observe that I go no farther now—need not be backed by argument at every special point. Flanking operations are less costly and in some ways more effective than frontal attacks. Possibly you will yourselves think after hearing my remaining lectures that the alternative of an universe absolutely rational or absolutely irrational is forced and strained, and that a *via media* exists which some of you may agree with me is to be preferred. *Some* rationality certainly does characterize our universe; and, weighing one kind with another, we may deem that the incomplete kinds that appear are on the whole as acceptable as the through-and-through sort of rationality on which the monistic systematizers insist.

This [6] is the philosophy of humanism in the widest sense.

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[6] *Ibid.*, pp. 317–319.

Our philosophies swell the current of being, add their character to it. They are part of all that we have met, of all that makes us be. As a French philosopher says, "Nous sommes du réel dans le réel." Our thoughts determine our acts, and our acts re-determine the previous nature of the world.

Thus does foreignness get banished from our world, and far more so when we take the system of it pluralistically than when we take it monistically. We are indeed internal parts of God and not external creations, on any possible reading of the panpsychic system. Yet because God is not the absolute, but is himself a part when the system is conceived pluralistically, his functions can be taken as not wholly dissimilar to those of the other smaller parts,—as similar to our functions consequently. Having an environment, being in time, and working out a history just like ourselves, he escapes from the foreignness from all that is human, of the static timeless perfect absolute.

Remember that one of our troubles with that was its essential foreignness and monstrosity—there really is no other word for it than that. Its having the all-inclusive form gave to it an essentially heterogeneous *nature* from ourselves. And this great difference between absolutism and pluralism demands no difference in the universe's material content—it follows from a difference in the form alone. The all-form or monistic form makes the foreignness result, the each-form or pluralistic form leaves the intimacy undisturbed.

No matter what the content of the universe may be, if you only allow that it is *many* everywhere and always, that *nothing* real escapes from having an environment; so far from defeating its rationality, as the absolutists so unanimously pretend, you leave it in possession of the maximum amount of rationality practically attainable by

our minds. Your relations with it, intellectual, emotional, and active, remain fluent and congruous with your own nature's chief demands.

Pragmatically [7] interpreted, pluralism or the doctrine that it is many means only that the sundry parts of reality *may be externally related.* Everything you can think of, however vast or inclusive, has on the pluralistic view a genuinely "external" environment of some sort or amount. Things are "with" one another in many ways, but nothing includes everything, or dominates over everything. The word "and" trails along after every sentence. Something always escapes. "Ever not quite" has to be said of the best attempts made anywhere in the universe at attaining all-inclusiveness. The pluralistic world is thus more like a federal republic than like an empire or a kingdom. However much may be collected, however much may report itself as present at any effective center of consciousness or action, something else is self-governed and absent and unreduced to unity.

Monism, on the other hand, insists that when you come down to reality as such, to the reality of realities, everything is present to *everything* else in one vast instantaneous co-implicated completeness—nothing can in *any* sense, functional or substantial, be really absent from anything else, all things interpenetrate and telescope together in the great total conflux.

For pluralism, all that we are required to admit as the constitution of reality is what we ourselves find empirically realized in every minimum of finite life. Briefly it is this, that nothing real is absolutely simple, that every smallest bit of experience is a *multum in parvo* plurally related, that each relation is one aspect, character, or function, way of its being taken, or way of its taking something

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[7] *Ibid.*, pp. 321–330.

else; and that a bit of reality when actively engaged in one of these relations is not *by that very fact* engaged in all the other relations simultaneously. The relations are not *all* what the French call *solidaires* with one another. Without losing its identity a thing can either take up or drop another thing, like the log I spoke of, which by taking up new carriers and dropping old ones can travel anywhere with a light escort.

For monism, on the contrary, everything, whether we realize it or not, drags the whole universe along with itself and drops nothing. The log starts and arrives with all its carriers supporting it. If a thing were once disconnected, it could never be connected again, according to monism. The pragmatic difference between the two systems is thus a definite one. It is just thus, that if *a* is once out of sight of *b* or out of touch with it, or, more briefly, "out" of it at all, then, according to monism, it must always remain so, they can never get together; whereas pluralism admits that on another occasion they may work together, or in some way be connected again. Monism allows for no such things as "other occasions" in reality—in *real* or absolute reality, that is.

The difference I try to describe amounts, you see, to nothing more than the difference between what I formerly called the each-form and the all-form of reality. Pluralism lets things really exist in the each-form or distributively. Monism thinks that the all-form or collective-unit form is the only form that is rational. The all-form allows of no taking up and dropping of connections, for in the all the parts are essentially and eternally co-implicated. In the each-form, on the contrary, a thing may be connected by intermediary things, with a thing with which it has no immediate or essential connection. It is thus at all times in many possible connections which are not necessarily actualized at the moment. They depend on which

actual path of intermediation it may functionally strike into: the word "or" names a genuine reality. Thus, as I speak, here, I may look ahead *or* to the right *or* to the left, and in either case the intervening space and air and ether enable me to see the faces of a different portion of this audience. My being here is independent of any one set of these faces.

If the each-form be the eternal form of reality no less than it is the form of temporal appearance, we still have a coherent world, and not an incarnate incoherence, as is charged by so many absolutists. Our "multiverse" still makes a "universe"; for every part, though it may not be in actual or immediate connection, is nevertheless in some possible or mediated connection, with every other part however remote, through the fact that each part hangs together with its very next neighbors in inextricable interfusion. The type of union, it is true, is different here from the monistic type of *all-einheit*. It is not a universal co-implication, or integration of all things *durcheinander*. It is what I call the strung-along type, the type of continuity, contiguity, or concatenation. If you prefer Greek words, you may call it the synechistic type. At all events, you see that it forms a definitely conceivable alternative to the through-and-through unity of all things at once, which is the type opposed to it by monism. You see also that it stands or falls with the notion I have taken such pains to defend, of the through-and-through union of adjacent minima of experience, of the confluence of every passing moment of concretely felt experience with its immediately next neighbors. The recognition of this fact of coalescence of next with next in concrete experience, so that all the insulating cuts we make there are artificial products of the conceptualizing faculty, is what distinguishes the empiricism which I call "radical," from the bugaboo empiricism of the traditional rationalist critics,

which (rightly or wrongly) is accused of chopping up experience into atomistic sensations, incapable of union with one another until a purely intellectual principle has swooped down upon them from on high and folded them in its own conjunctive categories. Here, then, you have the plain alternative, and the full mystery of the difference between pluralism and monism, as clearly as I can set it forth on this occasion. It packs up into a nutshell:—Is the manyness in oneness that indubitably characterizes the world we inhabit, a property only of the absolute whole of things, so that you must postulate that one-enormous-whole indivisibly at the *prius* of there being any many at all—in other words, start with the rationalistic block-universe, entire, unmitigated, and complete?—or can the finite elements have their own aboriginal forms of manyness in oneness, and where they have no immediate oneness still be continued into one another by intermediary terms—each one of these terms being one with its next neighbors, and yet the total "oneness" never getting absolutely complete?

The alternative is definite. It seems to me, moreover, that the two horns of it make pragmatically different ethical appeals—at least they *may* do so, to certain individuals. But if you consider the pluralistic horn to be intrinsically irrational, self-contradictory, and absurd, I can now say no more in its defence. Having done what I could in my earlier lectures to break the edge of the intellectualistic *reductiones ad absurdum,* I must leave the issue in your hands. Whatever I may say each of you will be sure to take pluralism or leave it, just as your own sense of rationality moves and inclines. The only thing I emphatically insist upon is that it is a fully coördinate hypothesis with monism. This world *may,* in the last resort, be a block universe; but on the other hand it *may* be a universe only strung-along, not rounded in and closed.

Reality *may* exist distributively just as it sensibly seems to, after all. On that possibility I do insist.

One's general vision of the probable usually decides such alternatives. They illustrate what I once wrote of as the "will to believe." In some of my lectures at Harvard I have spoken of what I call the "faith-ladder," as something quite different from the *sorites* of the logic-books, yet seeming to have an analogous form. I think you will quickly recognize in yourselves, as I describe it, the mental process to which I give this name.

A conception of the world arises in you somehow, no matter how. Is it true or not? you ask.

It *might* be true somewhere, you say, for it is not self-contradictory.

It *may* be true, you continue, even here and now.

It is *fit* to be true, it would be *well if it were true,* it *ought* to be true, you presently feel.

It *must* be true, something persuasive in you whispers next; and then—as a final result—

It shall be *held for true,* you decide; it *shall* be as if true, for *you.*

And your acting thus may in certain special cases be a means of making it securely true in the end.

Not one step in this process is logical, yet it is the way in which monists and pluralists alike espouse and hold fast to their visions. It is life exceeding logic, it is the practical reason for which the theoretic reason finds arguments after the conclusion is once there. In just this way do some of us hold to the unfinished pluralistic universe; in just this way do others hold to the timeless universe eternally complete.

Meanwhile the incompleteness of the pluralistic universe, thus assumed and held to as the most probable hypothesis, is also represented by the pluralistic philosophy as being self-reparative through us, as getting its

disconnections remedied in part by our behavior. "We use what we are and have, to know; and what we know, to be and have still more." Thus do philosophy and reality, theory and action, work in the same circle indefinitely.

CHAPTER XXV

THE SELF

1. The Original Datum of Knowledge

The place which Descartes assigns to the self in reality is important for his own philosophy, and his view has been very influential historically in other systems:[1]

I will make an effort, and try anew the same path on which I had entered yesterday, that is, proceed by casting aside all that admits of the slightest doubt, not less than if I had discovered it to be absolutely false; and I will continue always in this track until I shall find something that is certain, or at least, if I can do nothing more, until I shall know with certainty that there is nothing certain. Archimedes, that he might transport the entire globe from the place it occupied to another, demanded only a point that was firm and immovable; so also, I shall be entitled to entertain the highest expectations, if I am fortunate enough to discover only one thing that is certain and indubitable.

I suppose, accordingly, that all the things which I see are false (fictitious); I believe that none of those objects which my fallacious memory represents ever existed; I suppose that I possess no senses; I believe that body, figure, extension, motion, and place are merely fictions of my mind. What is there, then, that can be esteemed true? Perhaps this only, that there is absolutely nothing certain.

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1 Descartes, from *Meditations*, II; edition previously cited. For note on Descartes, see p. 219.

But how do I know that there is not something different altogether from the objects I have now enumerated, of which it is impossible to entertain the slightest doubt? Is there not a God, or some being, by whatever name I may designate him, who causes these thoughts to arise in my mind? But why suppose such a being, for it may be I myself am capable of producing them? Am I, then, at least not something? But I before denied that I possessed senses or a body; I hesitate, however, for what follows from that? Am I so dependent on the body and the senses that without these I cannot exist? But I had the persuasion that there was absolutely nothing in the world, that there was no sky and no earth, neither minds nor bodies; was I not, therefore, at the same time, persuaded that I did not exist? Far from it; I assuredly existed, since I was persuaded. But there is I know not what being, who is possessed at once of the highest power and the deepest cunning, who is constantly employing all his ingenuity in deceiving me. Doubtless, then, I exist, since I am deceived; and, let him deceive me as he may, he can never bring it about that I am nothing, so long as I shall be conscious that I am something. So that it must, in fine, be maintained, all things being maturely and carefully considered, that this proposition (*pronunciatum*) I am, I exist, is necessarily true each time it is expressed by me, or conceived in my mind. . . .

Can I affirm that I possess any one of all those attributes of which I have lately spoken as belonging to the nature of body? After attentively considering them in my own mind, I find none of them that can properly be said to belong to myself. To recount them were idle and tedious. Let us pass, then, to the attributes of the soul. The first mentioned were the powers of nutrition and walking; but, if it be true that I have no body, it is true likewise that I am capable neither of walking nor of being

nourished. Perception is another attribute of the soul; but perception too is impossible without the body: besides, I have frequently, during sleep, believed that I perceived objects which I afterwards observed I did not in reality perceive. Thinking is another attribute of the soul; and here I discover what properly belongs to myself. This alone is inseparable from me. I am—I exist: this is certain; but how often? As often as I think; for perhaps it would even happen, if I should wholly cease to think, that I should at the same time altogether cease to be. I now admit nothing that is not necessarily true: I am therefore, precisely speaking, only a thinking thing, that is, a mind (*mens sive animus*), understanding, or reason, —terms whose signification was before unknown to me. I am, however, a real thing, and really existent; but what thing? The answer was, a thinking thing. The question now arises, am I aught besides? I will stimulate my imagination with a view to discover whether I am not still more than a thinking being. Now it is plain I am not the assemblage of members called the human body; I am not a thin and penetrating air diffused through all these members, or wind, or flame, or vapor, or breath, or any of all the things I can imagine; for I supposed that all these were not, and, without changing the supposition, I find that I still feel assured of my existence.

2. Skeptical Doubts about the Existence of the Self

The classic passage in which Hume challenges the proofs of the existence of the self is the following: [2]

There are some philosophers, who imagine we are every moment intimately conscious of what we call our *self;* that

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[2] Hume, *Treatise of Human Nature,* edition of 1854, Book I, Part IV, Section vi.

David Hume (1711–1776), Scotch historian and philosopher, held various secretarial and political positions. His chief work, *Treatise*

we feel its existence and its continuance in existence; and are certain, beyond the evidence of a demonstration, both of its perfect identity and simplicity. The strongest sensation, the most violent passion, say they, instead of distracting us from this view, only fix it the more intensely, and make us consider their influence on *self* either by their pain or pleasure. To attempt a further proof of this were to weaken its evidence; since no proof can be derived from any fact of which we are so intimately conscious; nor is there any thing, of which we can be certain, if we doubt of this.

Unluckily all these positive assertions are contrary to that very experience which is pleaded for them; nor have we any idea of *self,* after the manner it is here explained. For, from what impression could this idea be derived? This question it is impossible to answer without a manifest contradiction and absurdity; and yet it is a question which must necessarily be answered, if we would have the idea of self pass for clear and intelligible. It must be some one impression that gives rise to every real idea. But self or person is not any one impression, but that to which our several impressions and ideas are supposed to have a reference. If any impression gives rise to the idea of self, that impression must continue invariably the same, through the whole course of our lives; since self is supposed to exist after that manner. But there is no impression constant and invariable. Pain and pleasure, grief and joy, passions and sensations, succeed each other, and never all exist at the same time. It cannot therefore be from any of these impressions, or from any other, that

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of Human Nature, was written in France between 1734 and 1737. It was not well received at first; and was later rewritten in separate parts as: *Inquiry concerning Human Understanding* (1748), *Inquiry concerning the Principles of Morals* (1751), and *A Dissertation on the Passions* (1757).

the idea of self is derived; and consequently there is no such idea.

But further, what must become of all our particular perceptions upon this hypothesis? All these are different, and distinguishable, and separable from each other, and may be separately considered, and may exist separately, and have no need of anything to support their existence. After what manner therefore do they belong to self, and how are they connected with it? For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch *myself* at any time without a perception, and never can observe any thing but the perception. When my perceptions are removed for any time, as by sound sleep, so long am I insensible of *myself*, and may truly be said not to exist. And were all my perceptions removed by death, and could I neither think, nor feel, nor see, nor love, nor hate, after the dissolution of my body, I should be entirely annihilated, nor do I conceive what is further requisite to make me a perfect nonentity. If any one, upon serious and unprejudiced reflection, thinks he has a different notion of *himself*, I must confess I can no longer reason with him. All I can allow him is, that he may be in the right as well as I, and that we are essentially different in this particular. He may, perhaps, perceive something simple and continued, which he calls *himself;* though I am certain there is no such principle in me.

But setting aside some metaphysicians of this kind, I may venture to affirm of the rest of mankind, that they are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. Our eyes cannot turn in their sockets without varying our perceptions. Our thought is still more variable than our

sight; and all our other senses and faculties contribute to this change; nor is there any single power of the soul, which remains unalterably the same, perhaps for one moment. The mind is a kind of theater, where several perceptions successively make their appearance; pass, repass, glide away, and mingle in an infinite variety of postures and situations. There is properly no *simplicity* in it at one time, nor identity in different, whatever natural propension we may have to imagine that simplicity and identity. The comparison of the theater must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place where these scenes are represented, or of the materials of which it is composed.

What then gives us so great a propension to ascribe an identity to these successive perceptions, and to suppose ourselves possessed of an invariable and uninterrupted existence through the whole course of our lives? In order to answer this question, we must distinguish betwixt personal identity, as it regards our thought or imagination, and as it regards our passions or the concern we take in ourselves. The first is our present subject; and to explain it perfectly we must take the matter pretty deep, and account for that identity, which we attribute to plants and animals; there being a great analogy betwixt it and the identity of a self or person.

We have a distinct idea of an object that remains invariable and uninterrupted through a supposed variation of time; and this idea we cal' that of *identity* or *sameness.* We have also a distinct idea of several different objects existing in succession, and connected together by a close relation; and this to an accurate view affords as perfect a notion of *diversity,* as if there was no manner of relation among the objects. But though these two ideas of identity, and a succession of related objects, be

in themselves perfectly distinct, and even contrary, yet it is certain that, in our common way of thinking, they are generally confounded with each other. That action of the imagination, by which we consider the uninterrupted and invariable object, and that by which we reflect on the succession of related objects, are almost the same to the feelings; nor is there much more effort of thought required in the latter case than in the former. The relation facilitates the transition of the mind from one object to another, and renders its passage as smooth as if it contemplated one continued object. This resemblance is the cause of the confusion and mistake, and makes us substitute the notion of identity, instead of that of related objects. However at one instant we may consider the related succession as variable or interrupted, we are sure the next to ascribe to it a perfect identity, and regard it as invariable and uninterrupted. Our propensity to this mistake is so great from the resemblance above mentioned, that we fall into it before we are aware; and though we incessantly correct ourselves by reflection, and return to a more accurate method of thinking, yet we cannot long sustain our philosophy, or take off this bias from the imagination. Our last resource is to yield to it, and boldly assert that these different related objects are in effect the same, however interrupted and variable. In order to justify to ourselves this absurdity, we often feign some new and unintelligible principle, that connects the objects together, and prevents their interruption and variation. Thus, we feign the continued existence of the perceptions of our senses, to remove the interruption; and run into the notion of the *soul*, and *self*, and *substance*, to disguise the variation. But, we may further observe, that where we do not give rise to such a fiction, our propension to confound identity with relation is so great, that we are apt to imagine something unknown and mysterious, con-

necting the parts, beside their relation; and this I take to be the case with regard to the identity we ascribe to plants and vegetables. And even when this does not take place, we still feel a propensity to confound these ideas, though we are not able fully to satisfy ourselves in that particular, nor find anything invariable and uninterrupted to justify our notion of identity.

Thus, the controversy concerning identity is not merely a dispute of words. For, when we attribute identity, in an improper sense, to variable or interrupted objects, our mistake is not confined to the expression, but is commonly attended with a fiction, either of something invariable and uninterrupted, or of something mysterious and inexplicable, or at least with a propensity to such fictions. What will suffice to prove this hypothesis to the satisfaction of every fair inquirer, is to show, from daily experience and observation, that the objects which are variable or interrupted, and yet are supposed to continue the same, are such only as consist of a succession of parts, connected together by resemblance, contiguity, or causation. For as such a succession answers evidently to our notion of diversity, it can only be by mistake we ascribe to it an identity; and as the relation of parts, which leads us into this mistake, is really but a quality, which produces an association of ideas, and an easy transition of the imagination from one to another, it can only be from the resemblance, which this act of the mind bears to that by which we contemplate one continued object, that the error arises. Our chief business, then, must be to prove, that all objects, to which we ascribe identity, without observing their invariableness and uninterruptedness, are such as consist of a succession of related objects.

In order to this, suppose any mass of matter, of which the parts are contiguous and connected, to be placed before us; it is plain we must attribute a perfect identity to this

mass, provided all the parts continue uninterruptedly and invariably the same, whatever motion or change of place we may observe either in the whole or in any of the parts. But supposing some very *small inconsiderable* part to be added to the mass, or subtracted from it; though this absolutely destroys the identity of the whole, strictly speaking, yet as we seldom think so accurately, we scruple not to pronounce a mass of matter the same, where we find so trivial an alteration. The passage of thought from the object before the change to the object after it, is so smooth and easy, that we scarce perceive the transition, and are apt to imagine that it is nothing but a continued survey of the same object.

There is a very remarkable circumstance that attends this experiment; which is, that though the change of any considerable part in a mass of matter destroys the identity of the whole, yet we must measure the greatness of the part, not absolutely, but by its *proportion* to the whole. The addition or diminution of a mountain would not be sufficient to produce a diversity in a planet; though the change of a very few inches would be able to destroy the identity of some bodies. It will be impossible to account for this, but by reflecting that objects operate upon the mind, and break or interrupt the continuity of its actions, not according to their real greatness, but according to their proportion to each other; and therefore, since this interruption makes an object cease to appear the same, it must be the interrupted progress of the thought which constitutes the imperfect identity.

This may be confirmed by another phenomenon. A change in any considerable part of a body destroys its identity; but it is remarkable, that where the change is produced *gradually* and *insensibly,* we are less apt to ascribe to it the same effect. The reason can plainly be no other, than that the mind, in following the successive

changes of the body, feels an easy passage from the surveying its condition in one moment, to the viewing of it in another, and in no particular time perceives any interruption in its actions. From which continued perception, it ascribes a continued existence and identity to the object.

But whatever precaution we may use in introducing the changes gradually, and making them proportionable to the whole, it is certain, that where the changes are at last observed to become considerable, we make a scruple of ascribing identity to such different objects. There is, however, another artifice, by which we may induce the imagination to advance a step further; and that is, by producing a reference of the parts to each other, and a combination to some *common end* or purpose. A ship, of which a considerable part has been changed by frequent reparations, is still considered as the same; nor does the difference of the materials hinder us from ascribing an identity to it. The common end, in which the parts conspire, is the same under all their variations, and affords an easy transition of the imagination from one situation of the body to another.

But this is still more remarkable, when we add a *sympathy* of parts to their *common end,* and suppose that they bear to each other the reciprocal relation of cause and effect in all their operations and actions. This is the case with all animals and vegetables; where not only the several parts have a reference to some general purpose, but also a mutual dependence on, and connection with, each other. The effect of so strong a relation is, that though every one must allow, that in a very few years both vegetables and animals endure a *total* change, yet we still attribute identity to them, while their form, size, and substance, are entirely altered. An oak that grows from a small plant to a large tree is still the same oak, though there be not one particle of matter or figure of its parts

the same. An infant becomes a man, and is sometimes fat, sometimes lean, without any change in his identity.

We may also consider the two following phenomena, which are remarkable in their kind. The first is, that though we commonly be able to distinguish pretty exactly betwixt numerical and specific identity, yet it sometimes happens that we confound them, and in our thinking and reasoning employ the one for the other. Thus, a man who hears a noise that is frequently interrupted and renewed, says it is still the same noise, though it is evident the sounds have only a specific identity or resemblance, and there is nothing numerically the same but the cause which produced them. In like manner it may be said, without breach of the propriety of language, that such a church, which was formerly of brick, fell to ruin, and that the parish rebuilt the same church of freestone, and according to modern architecture. Here neither the form nor materials are the same nor is there any thing common to the two objects but their relation to the inhabitants of the parish; and yet this alone is sufficient to make us denominate them the same. But we must observe, that in these cases the first object is in a manner annihilated before the second comes into existence, by which means, we are never presented, in any one point of time, with the idea of difference and multiplicity; and for that reason are less scrupulous in calling them the same.

Secondly, we may remark, that though, in a succession of related objects, it be in a manner requisite that the change of parts be not sudden nor entire, in order to preserve the identity, yet where the objects are in their nature changeable and inconstant, we admit of a more sudden transition than would otherwise be consistent with that relation. Thus, as the nature of a river consists in the motion and change of parts, though in less than four-and-twenty hours these be totally altered, this hinders not

the river from continuing the same during several ages. What is natural and essential to any thing is, in a manner, expected; and what is expected makes less impression, and appears of less moment than what is unusual and extraordinary. A considerable change of the former kind seems really less to the imagination than the most trivial alteration of the latter; and by breaking less the continuity of the thought, has less influence in destroying the identity.

We now proceed to explain the nature of *personal identity*, which has become so great a question in philosophy, especially of late years, in England, where all the abstruser sciences are studied with a peculiar ardor and application. And here it is evident the same method of reasoning must be continued which has so successfully explained the identity of plants, and animals, and ships, and houses, and of all compounded and changeable productions either of art or nature. The identity which we ascribe to the mind of man is only a fictitious one, and of a like kind with that which we ascribe to vegetable and animal bodies. It cannot therefore have a different origin, but must proceed from a like operation of the imagination upon like objects.

But lest this argument should not convince the reader, though in my opinion perfectly decisive, let him weigh the following reasoning, which is still closer and more immediate. It is evident that the identity which we attribute to the human mind, however perfect we may imagine it to be, is not able to run the several different perceptions into one, and make them lose their characters of distinction and difference, which are essential to them. It is still true that every distinct perception which enters into the composition of the mind, is a distinct existence, and is different, and distinguishable, and separable from every other perception, either contemporary or successive. But as, notwithstanding this distinction and separability, we suppose the whole train of perceptions to be united by iden-

tity, a question naturally arises concerning this relation of identity, whether it be something that really binds our several perceptions together, or only associates their ideas in the imagination; that is, in other words, whether, in pronouncing concerning the identity of a person, we observe some real bond among his perceptions, or only feel one among the ideas we form of them. This question we might easily decide, if we would recollect what has been already proved at large, that the understanding never observes any real connection among objects, and that even the union of cause and effect, when strictly examined, resolves itself into a customary association of ideas. For from thence it evidently follows, that identity is nothing really belonging to these different perceptions, and uniting them together, but is merely a quality which we attribute to them, because of the union of their ideas in the imagination when we reflect upon them. Now, the only qualities which can give ideas a union in the imagination, are these three above mentioned. These are the uniting principles in the ideal world, and without them every distinct object is separable by the mind, and may be separately considered, and appears not to have any more connection with another object than if disjoined by the greatest difference and remoteness. It is therefore on some of these three relations of resemblance, contiguity, and causation, that identity depends; and as the very essence of these relations consists in their producing an easy transition of ideas, it follows, that our notions of personal identity proceed entirely from the smooth and uninterrupted progress of the thought along a train of connected ideas, according to the principles above explained.

The only question, therefore, which remains is, by what relations this uninterrupted progress of our thought is produced, when we consider the successive existence of a mind or thinking person. And here it is evident we must

confine ourselves to resemblance and causation, and must drop contiguity, which has little or no influence in the present case.

To begin with *resemblance;* suppose we could see clearly into the breast of another, and observe that succession of perceptions which constitutes his mind or thinking principle, and suppose that he always preserves the memory of a considerable part of past perceptions, it is evident that nothing could more contribute to the bestowing a relation on this succession amidst all its variations. For what is the memory but a faculty, by which we raise up the images of past perceptions? And as an image necessarily resembles its object, must not the frequent placing of these resembling perceptions in the chain of thought, convey the imagination more easily from one link to another, and make the whole seem like the continuance of one object? In this particular, then, the memory not only discovers the identity, but also contributes to its production, by producing the relation of resemblance among the perceptions. The case is the same, whether we consider ourselves or others.

As to *causation;* we may observe, that the true idea of the human mind, is to consider it as a system of different perceptions or different existences, which are linked together by the relation of cause and effect, and mutually produce, destroy, influence, and modify each other. Our impressions give rise to their correspondent ideas; and these ideas, in their turn, produce other impressions. One thought chases another, and draws after it a third, by which it is expelled in its turn. In this respect, I cannot compare the soul more properly to any thing than to a republic or commonwealth, in which the several members are united by the reciprocal ties of government and subordination, and give rise to other persons who propagate the same republic in the incessant changes of its parts.

And as the same individual republic may not only change its members, but also its laws and constitutions; in like manner the same person may vary his character and disposition, as well as his impressions and ideas, without losing his identity. Whatever changes he endures, his several parts are still connected by the relation of causation. And in this view our identity with regard to the passions serves to corroborate that with regard to the imagination, by the making our distant perceptions influence each other, and by giving us a present concern for our past or future pains or pleasures.

As memory alone acquaints us with the continuance and extent of this succession of perceptions, it is to be considered, upon that account chiefly, as the source of personal identity. Had we no memory, we never should have any notion of causation, nor consequently of that chain of causes and effects, which constitute our self or person. But having once acquired this notion of causation from the memory, we can extend the same chain of causes, and consequently the identity of our persons beyond our memory, and can comprehend times, and circumstances, and actions, which we have entirely forgot, but suppose in general to have existed. For how few of our past actions are there, of which we have any memory? Who can tell me, for instance, what were his thoughts and actions on the first day of January, 1715, the eleventh of March, 1719, and the third of August, 1733? Or will he affirm, because he has entirely forgot the incidents of these days, that the present self is not the same person with the self of that time; and by that means overturn all the most established notions of personal identity? In this view, therefore, memory does not so much *produce* as *discover* personal identity, by showing us the relation of cause and effect among our different perceptions. It will be incumbent on those who affirm that memory produces entirely

our personal identity, to give a reason why we can thus extend our personal identity beyond our memory.

The whole of this doctrine leads us to a conclusion, which is of great importance in the present affair, viz.: that all the nice and subtile questions concerning personal identity can never possibly be decided, and are to be regarded rather as grammatical than as philosophical difficulties. Identity depends upon the relations of ideas; and these relations produce identity, by means of that easy transition they occasion. But as the relations, and the easiness of the transition may diminish by insensible degrees, we have no just standard by which we can decide any dispute concerning the time when they acquire or lose a title to the name of identity. All the disputes concerning the identity of connected objects are merely verbal, except so far as the relation of parts gives rise to some fiction or imaginary principle of union, as we have already observed.

What I have said concerning the first origin and uncertainty of our notion of identity, as applied to the human mind, may be extended with little or no variation to that of *simplicity*. An object, whose different coexistent parts are bound together by a close relation, operates upon the imagination after much the same manner as one perfectly simple and indivisible, and requires not a much greater stretch of thought in order to its conception. From this similarity of operation we attribute a simplicity to it, and feign a principle of union as the support of this simplicity, and the center of all the different parts and qualities of the object.

3. The Synthetic Unity of Apperception

Kant replies to Hume that the unity of the self is the essential precondition to all unity of experience, not a derivative from it. He states his view in the important passages here given: [3]

[3] Kant, *Critique of Pure Reason,* from Watson's *Selections,* pp.

It would be quite a sufficient deduction of the categories, and justification of their objective application, to show that, apart from them, no object whatever is capable of being thought. But there are two reasons why a fuller deduction is advisable: firstly, because, in thinking an object, other faculties besides understanding, or the faculty of thought proper, come into play; and, secondly, because it has to be explained how understanding can possibly be a condition of the knowledge of real objects. We must, therefore, begin with a consideration of the primary activities of the subject that are essential in the constitution of experience; and these we must view, not in their empirical, but in their transcendental character.

If consciousness were broken up into a number of mutually repellent states, each isolated and separated from the rest, knowledge would never arise in us at all, for knowledge is a whole of related and connected elements. When, therefore, I call sensible perception a synopsis, in order to mark the complexity of its content, it must be remembered that in this synopsis a certain synthesis is implied, and that knowledge is possible only if *spontaneity* is combined with *receptivity*. This is the reason why we must say that in all knowledge there is a three-fold synthesis: firstly, the *apprehension* in perception of various ideas, or modifications of the mind; secondly, their *reproduction* in imagination; and, thirdly, their *recognition* in conception. These three forms of synthesis point to three sources of knowledge, which make understanding itself possible, and through it all experience as an empirical product of understanding.

1. *Synthesis of Apprehension in Perception.*

Whatever may be the origin of our ideas, whether they

56–67, edition previously cited; from the "Transcendental Analytic," Book I. Chap. ii.

are due to the influence of external things or are produced by internal causes, whether as objects they have their source *a priori* or in experience, as modifications of the mind they must all belong to the inner sense. All knowledge is, therefore, at bottom subject to time as the formal condition of inner sense, and in time every part of it without exception must be ordered, connected, and brought into relation with every other part. This is a general remark, which must be kept in mind in the whole of our subsequent inquiry.

We should not be conscious of the various determinations that every perception contains within itself were we not, in the succession of our impressions, conscious of time. If each feeling were limited to a single moment, it would be an absolutely individual unit. In order that the various determinations of a perception, as, for instance, the parts of a line, should form a unity, it is necessary that they should be run over and held together by the mind. This act I call the *synthesis of apprehension.* It is *apprehension,* because it goes straight to perception; it is *synthesis,* because only by synthesis can the various elements of perception be united in one object of consciousness.

Now, this synthesis of apprehension must be employed *a priori* also, or in relation to determinations not given in sensible experience. Otherwise we should have no consciousness of space and time *a priori,* for these can be produced only by a synthesis of the various determinations that are presented by sensibility in its original receptivity. There is therefore a pure synthesis of apprehension.

2. *Synthesis of Reproduction in Imagination.*

There is an empirical law of the association of ideas. When any two ideas have often followed, or accompanied each other, an association between them is at last formed, and they are so connected that, even when an object is not

present, the mind passes from the one to the other in conformity with a fixed rule. But this law of reproduction presupposes that phenomena are themselves actually subject to such a rule, and that the various elements in these phenomena of which we are conscious should accompany or follow one another in accordance with certain rules. On any other supposition our empirical imagination would have nothing to reproduce in any way conforming to its own nature, and would therefore lie hidden in the depths of the mind as a dead, and to us unknown faculty. Were cinnabar, for instance, sometimes red and sometimes black, sometimes light and sometimes heavy; or were the same name given at one time to this object, and at another time to that, without the least regard to any rule implied in the nature of the phenomena themselves, there could be no empirical synthesis of reproduction.

There must, therefore, be something which makes the reproduction of phenomena possible at all, something which is the *a priori* ground of a necessary synthetic unity. That this is so, we may at once see, if we reflect that phenomena are not things in themselves, but are merely the play of our own ideas, and therefore at bottom determinations of the inner sense. Now, if we can show that even our purest *a priori* perceptions can yield knowledge, only in so far as they involve such a combination as makes a thoroughgoing synthesis of reproduction possible, we may conclude that this synthesis of imagination, being prior to all experience, rests upon *a priori* principles. We must then assume a pure transcendental synthesis as the necessary condition of all experience, for experience is impossible unless phenomena are capable of being reproduced. Now, if I draw a line in thought, or think of the time from one day to another, or even think of a certain number, it is plain that I must be conscious of the various determinations one after the other. But if the earlier determinations

—the prior parts of the line, the antecedent moments of time, the units as they arise one after the other—were to drop out of my consciousness, and could not be reproduced when I passed on to the later determinations, I should never be conscious of a whole; and hence not even the simplest and most elementary idea of space or time could arise in my consciousness.

The synthesis of reproduction is therefore inseparably bound up with the synthesis of apprehension. And as the synthesis of apprehension is the transcendental ground of the possibility of all knowledge—of pure *a priori* as well as empirical knowledge—the reproductive synthesis of imagination belongs to the transcendental functions of the mind, and may therefore be called the transcendental faculty of imagination.

3. *Synthesis of Recognition in Conceptions.*

Were I not conscious that what I think now is identical with what I thought a moment ago, all reproduction in the series of ideas would be useless. The idea reproduced at a given moment would be for me a perfectly new idea. There would be no identical consciousness bound up with the act of producing one idea after another; and as without such consciousness there could be for me no unity, I should never be conscious of the various members of the series as forming one whole. If, in counting, I should forget that the units lying before my mind had been added by me one after the other, I should not be aware that a sum was being produced or generated in the successive addition of unit to unit; and as the conception of the sum is simply the consciousness of this unity of synthesis, I should have no knowledge of the number.

At this point it is necessary to have a clear idea of what we mean by an object of consciousness. We have seen that a phenomenon is just a sensation of which we are con-

scious, and that no sensation can be said to exist by itself as an object outside of consciousness. What, then, do we mean when we speak of an object as corresponding to our knowledge, and therefore as distinct from it? It is easy to see that this object can be thought of only as something $= x$, for there is nothing beyond knowledge that we can set up as contrasted with knowledge, and yet as corresponding to it.

It is plain that in knowledge we have to do with nothing but the various determinations of our own consciousness; hence the object $= x$, which corresponds to these determinations, if it is supposed to be distinct from every object of consciousness, is for us nothing at all. The unity which the object demands can be only the formal unity of consciousness in the synthesis of its various determinations. In saying that we know the object, we mean that we have introduced synthetic unity into the various determinations of perception. But this is impossible, if the perception could not be produced by a function of synthesis, which, in conforming to a rule, makes the reproduction of those determinations *a priori* necessary, and renders possible a conception that unites them.

There can be no knowledge without a conception, however indefinite or obscure it may be, and a conception is in form always a universal that serves as a rule. The conception of body, for instance, as a unity of the various determinations thought in it, serves as a rule in our knowledge of external phenomena. Now, it is always a transcendental condition that lies at the foundation of that which is necessary. There must, therefore, be a transcendental ground of the unity of consciousness in the synthesis of the various determinations implied in every perception; and this ground must be necessary to the conception of any object whatever, and therefore to the conception of every object of experience. In no other way

can there be any object for our perceptions; for the object is nothing but that something $= x$, the conception of which involves necessity of synthesis.

This original and transcendental condition is just *transcendental apperception.* The consciousness, in internal perception, of oneself as determined to certain states, is merely empirical, and is always changing. In the flux of inner phenomena there can be no unchanging or permanent self. This form of self-consciousness is usually called *inner sense* or *empirical apperception.* Now, from empirical data it is impossible to derive the conception of that which must *necessarily* be numerically identical. What we require, in explanation of such a transcendental presupposition, is a condition that precedes all experience, and makes it possible.

No knowledge whatever, no unity and connection of objects, is possible for us, apart from that unity of consciousness which is prior to all data of perception, and without relation to which no consciousness of objects is possible. This pure, original, unchangeable consciousness I call *transcendental apperception.* That this is the proper name for it is evident, were it only that even the purest objective unity, that of the *a priori* conceptions of space and time, is possible only in so far as perceptions are related to it. The numerical unity of this apperception is, therefore, just as much the *a priori* foundation of all conceptions as the various determinations of space and time are the *a priori* foundation of the perceptions of sense.

It is this transcendental unity of apperception which connects all the possible phenomena that can be gathered together in one experience, and subjects them to laws. There could be no such unity of consciousness were the mind not able to be conscious of the identity of function, by which it unites various phenomena in one knowledge. The original and necessary consciousness of the identity of

oneself is at the same time the consciousness of a necessary unity in the synthesis of all phenomena according to conceptions. These conceptions are necessary rules, which not only make phenomena capable of reproduction, but determine perception as perception of an object, that is, bring it under a conception of something in which various determinations are necessarily connected together. It would be impossible for the mind to think itself as identical in its various determinations, and indeed to think that identity *a priori,* if it did not hold the identity of its own act before its eyes, and if it did not, by subjecting to a transcendental unity all the synthesis of empirical apprehension, make the connection of the various determinations implied in that synthesis possible in accordance with *a priori* rules.

15. *Possibility of any Combination whatever.*

Though a perception is merely sensuous or receptive, the various determinations of consciousness may be given, while the form, as simply the way in which the subject is affected, may lie *a priori* in the mind. But the combination (*conjunctio*) of those determinations can never come to us through the medium of sense, and therefore cannot be contained even in the pure form of sensible perception. Combination is a spontaneous act of consciousness, and, as such, it is the especial characteristic of understanding, as distinguished from sense. All combination, therefore, whether we are aware of it or not, whether it is a combination of the various determinations of perception or of several conceptions, and whether the determinations of perception are empirical or pure, is an act of understanding. This act we call by the general name of *synthesis,* to draw attention to the fact that we can be conscious of nothing as combined in the object, which we have not ourselves previously combined. And as it proceeds entirely from the self-activity of the subject, combination

is the element, and the only element, that cannot be given by the object. It is easy to see that this act must in its origin always be of one and the same nature, no matter what may be the form of combination; and that the resolution or *analysis,* which seems to be its opposite, in point of fact always presupposes it. If understanding has previously combined nothing, there is nothing for it to resolve; for without the combining activity of understanding there can be no consciousness of an object at all.

By combination, however, must be understood not merely the synthesis of the various determinations of sense, but also their unity. Combination is consciousness of the *synthetic unity* of various determinations. The consciousness of this unity cannot be the result of the combination, for were we not, in being conscious of various determinations, also conscious of their unity, we should have no conception of combination at all. Nor must this unity, which precedes any conception of combination, be confused with the category of unity; for all categories rest upon logical functions of judgment, and, in these, combination, or the unity of given conceptions, is already implied. For an explanation of the unity in question, which is qualitative, we must go further back, and seek it in that which, as the ground of the unity of various conceptions in judgment, is implied in the possibility even of the logical use of understanding.

16. *The Original Synthetic Unity of Apperception.*

The *"I think"* must be capable of accompanying all my ideas; for, otherwise, I should be conscious of something that could not be thought; which is the same as saying, that I should not be conscious at all, or at least should be conscious only of that which for me was nothing. Now, that form of consciousness which is prior to all thought, is *perception.* Hence, all the manifold determinations of

perception have a necessary relation to the *"I think"* in the subject that is conscious of them. The *"I think,"* however, is an act of *spontaneity,* which cannot possibly be due to sense. I call it *pure apperception,* to distinguish it from *empirical apperception.* I call it also the *original apperception,* because it is the self-consciousness which produces the *"I think."* Now, the *"I think"* must be capable of accompanying all other ideas, and it is one and the same in all consciousness; but there is no other idea beyond the *"I think,"* to which self-consciousness is bound in a similar way. The unity of apperception I call also the *transcendental unity* of self-consciousness, to indicate that upon it depends the possibility of *a priori* knowledge. For, the various determinations given in a certain perception would not all be in my consciousness, if they did not all belong to one self-consciousness. True, I may not be aware of this, but yet as they are determinations of my consciousness, they must necessarily conform to the condition, without which they are not *capable* of standing together in one universal self-consciousness. In no other way would they all without exception be mine. From this original combination important consequences follow.

The absolute identity of apperception in relation to all the determinations given in perception, involves a synthesis of those determinations, and is possible only through consciousness of the synthesis. For, the empirical consciousness, which accompanies each determination as it arises, is in itself broken up into units, and is unrelated to the one identical subject. Relation to a single subject does not take place when I accompany each determination with consciousness, but only when I add one determination to the other, and am conscious of this act of synthesis. It is only because I am capable of combining *in one consciousness* the various determinations presented to me, that I can become aware that in every one of them the con-

sciousness is the same. The *analytic* unity of apperception is, therefore, possible only under presupposition of a certain *synthetic* unity. The thought, that the determinations given in a perception all belong to me, is the same as the thought, that I unite them, or at least that I am capable of uniting them in one self-consciousness. This does not of itself involve a *consciousness of the synthesis* of determinations, but it presupposes the possibility of that consciousness. It is only because I am capable of grasping the various determinations in one consciousness, that I can call them all mine; were it not so, I should have a self as many-colored and various as the separate determinations of which I am conscious. Synthetic unity of the various determinations of perception as given *a priori,* is therefore the ground of that identity of apperception itself, which precedes *a priori* every definite act of thought. Now, objects cannot combine themselves, nor can understanding learn that they are combined by observing their combination. All combination is the work of understanding, and in fact understanding is itself nothing but the faculty of combining *a priori,* and bringing under the unity of apperception, the various determinations given in perception. The unity of apperception is, therefore, the supreme principle of all our knowledge.

4. Freedom

The following is one of the most significant arguments for the freedom of the self. It is one of Kant's best statements of any of his views: [4]

The Idea of Freedom as the Key to the Autonomy of the Will

The *will* is the causality of living beings in so far as they are rational. *Freedom* is that causality in so far as it can

4 Kant, *Metaphysic of Morality,* from Watson's *Selections,* pp. 250–258, edition cited above; quoted from Section III.

be regarded as efficient without being *determined* to activity by any cause other than itself. Natural *necessity* is the property of all non-rational beings to be determined to activity by some cause external to themselves.

The definition of freedom just given is *negative*, and therefore it does not tell us what freedom is in itself; but it prepares the way for a *positive* conception of a more specific and more fruitful character. The conception of causality carries with it the conception of determination by law (Gesetz), for the effect is conceived as determined (gesetzt) by the cause. Hence freedom must not be regarded as lawless (gesetzlos), but simply as independent of laws of nature. A free cause does conform to unchangeable laws, but these laws are peculiar to itself; and, indeed, apart from law a free will has no meaning whatever. A necessary law of nature, as we have seen, implies the heteronomy of efficient causes; for no effect is possible at all, unless its cause is itself determined to activity by something else. What, therefore, can freedom possibly be but autonomy, that is, the property of the will to be a law to itself? Now, to say that the will in all its actions is a law to itself, is simply to say that its principle is, to act from no other maxim than that the object of which is itself as a universal law. But this is just the formula of the categorical imperative and the principle of morality. Hence a free will is the same thing as a will that conforms to moral laws.

If then, we start from the presupposition of freedom of the will, we can derive morality and the principle of morality simply from an analysis of the conception of freedom. Yet the principle of morality, namely, that an absolutely good will is a will the maxim of which can always be taken as itself a universial law, is a synthetic proposition. For by no possibility can we derive this property of the maxim from an analysis of the conception of an

absolutely good will. The transition from the conception of freedom to the conception of morality can be made only if there is a third proposition which connects the other two in a synthetic unity. The *positive* conception of freedom yields this third proposition, and not the conception of nature, in which a thing is related causally only to something else. What this third proposition is to which freedom points, and of which we have an *a priori* idea, can be made clear only after some preliminary investigation.

Freedom is a Property of All Rational Beings

It cannot in any way be proved that the will of man is free, unless it can be shown that the will of all rational beings is free. For morality is a law for us only in so far as we are rational beings, and therefore it must apply to all rational beings. But morality is possible only for a free being, and hence it must be proved that freedom also belongs to the will of all rational beings. Now I say, that a being who cannot act *except under the idea of freedom,* must for that very reason be regarded as free so far as his actions are concerned. In other words, even if it cannot be proved by speculative reason that his will is free, all the laws that are inseparably bound up with freedom must be viewed by him as laws of his will. And I say, further, that we must necessarily attribute to every rational being that has a will the idea of freedom, because every such being always acts under that idea. A rational being we must conceive as having a reason that is practical, that is, a reason that has causality with regard to its objects. Now, it is impossible to conceive of a reason which should be consciously biased in its judgments by some influence from without, for the subject would in that case regard its judgments as determined, not by reason,

but by a natural impulse. Reason must therefore regard itself as the author of its principles of action, and as independent of all external influences. Hence, as practical reason, or as the will of a rational being, it must be regarded by itself as free. The will of a rational being, in other words, can be his own will only if he acts under the idea of freedom, and therefore this idea must in the practical sphere be ascribed to all rational beings.

The Interest connected with Moral Ideas

We have at last succeeded in reducing the true conception of morality to the idea of freedom. This, however, does not prove that man actually is free, but only that, without presupposing freedom, we cannot conceive of ourselves as rational beings, who are conscious of causality with respect to our actions, that is, as endowed with will. We have also found that on the same ground all beings endowed with reason and will must determine themselves to action under the idea of their freedom.

From the presupposition of the idea of freedom there also followed the consciousness of a law of action, the law that our subjective principles of action, or maxims, must always be of such a character that they have the validity of objective or universal principles, and can be taken as universal laws imposed upon our will by ourselves. But why, it may be asked, should I subject myself to this principle simply as a rational being, and why, therefore, should all other beings who are endowed with reason come under the same principle? Admitting that I am not *forced* to do so by interest—which indeed would make a categorical imperative impossible—yet I must *take* an interest in that principle and see how I come to subject myself to it.

It looks as if we had, strictly speaking, shown merely

that in the idea of freedom the moral law must be presupposed in order to explain the principle of the autonomy of the will, without being able to prove the reality and objectivity of the moral law itself.

It must be frankly admitted, that there is here a sort of circle from which it seems impossible to escape. We assume that as efficient causes we are free, in order to explain how in the kingdom of ends we can be under moral laws; and then we think of ourselves as subject to moral laws, because we have ascribed to ourselves freedom of will. Freedom of will and self-legislation of will are both autonomy, and, therefore, they are conceptions which imply each other; but, for that very reason, the one cannot be employed to explain or to account for the other.

How is a Categorical Imperative Possible?

As an intelligence, a rational being views himself as a member of the intelligible world, and it is only as an efficient cause belonging to this world that he speaks of his own causality as *will.* On the other hand, he is conscious of himself as also a part of the world of sense, and in this connection his actions appear as mere phenomena which that causality underlies. Yet he cannot trace back his actions as phenomena to the causality of his will, because of that causality he has no knowledge; and he is thus forced to view them as if they were determined merely by other phenomena, that is, by natural desires and inclinations. Were a man a member only of the intelligible world, all his actions would be in perfect agreement with the autonomy of the will; were he merely a part of the world of sense, they would have to be regarded as completely subject to the natural law of desire and inclination, and to the heteronomy of nature. The former would rest upon the supreme principle of morality, the

latter upon that of happiness. But it must be observed that the intelligible world is *the condition of the world of sense,* and, therefore, of the laws of that world. And as the will belongs altogether to the intelligible world, it is the intelligible world that prescribes the laws which the will directly obeys. As an intelligence, I am therefore subject to the law of the intelligible world, that is, to reason, notwithstanding the fact that I belong on the other side of my nature to the world of sense. Now, as subject to reason, which in the idea of freedom contains the law of the intelligible world, I am conscious of being subject to the autonomy of the will. The laws of the intelligible world I must therefore regard as imperatives, and the actions conformable to this principle as duties.

The explanation of the possibility of categorical imperatives, then, is, that the idea of freedom makes me a member of the intelligible world. Were I a member of no other world, all my actions *would* as a matter of fact always conform to the autonomy of the will. But as I perceive myself to be also a member of the world of sense, I can say only, that my actions *ought* to conform to the autonomy of the will. The categorical *ought* is thus an *a priori* synthetic proposition. To my will as affected by sensuous desires, there is added synthetically the idea of my will as belonging to the intelligible world, and therefore as pure and self-determining. The will as rational is therefore the supreme condition of the will as sensuous. The method of explanation here employed is similar to that by which the categories were deduced. For the *a priori* synthetic propositions, which make all knowledge of nature possible, depend, as we have seen, upon the addition to perceptions of sense of the pure conceptions of understanding, which, in themselves, are nothing but the form of law in general.

Limits of Practical Philosophy

Freedom is only an *idea* of reason, and therefore its objective reality is doubtful. Thus there arises a dialectic of practical reason. The freedom ascribed to the will seems to stand in contradiction with the necessity of nature. It is, therefore, incumbent upon *speculative philosophy* at least to show that we think of man in one sense and relation when we call him free, and in another sense and relation when we view him as a part of nature, and as subject to its laws. But this duty is incumbent upon speculative philosophy only in so far as it has to clear the way for practical philosophy.

In *thinking* itself into the intelligible world, practical reason does not transcend its proper limits, as it would do if it tried to know itself directly by means of perception. In so thinking itself, reason merely conceives of itself negatively as *not* belonging to the world of sense, without giving any laws to itself in determination of the will. There is but a single point in which it is positive, namely, in the thought that freedom, though it is a negative determination, is yet bound up with a positive faculty, and, indeed, with a causality of reason which is called will. In other words, will is the faculty of so acting that the principle of action should conform to the essential nature of a rational motive, that is, to the condition that the maxim of action should have the universal validity of a law. Were reason, however, to derive an *object of will,* that is, a motive, from the intelligible world, it would transcend its proper limits, and would make a pretence of knowing something of which it knew nothing. The conception of an intelligible world is therefore merely a *point of view* beyond the world of sense, at which reason sees itself compelled to take its stand *in order to think itself as practical.* This conception would not be possible

at all if the sensuous desires were sufficient to determine the action of man. It is necessary, because otherwise man would not be conscious of himself as an intelligence, and, therefore, not as a rational cause acting through reason or operating freely. This thought undoubtedly involves the idea of an order and a system of laws other than the order and laws of nature, which concern only the world of sense. Hence it makes necessary the conception of an intelligible world, a world which comprehends the totality of rational beings as things in themselves. Yet it in no way entitles us to think of that world otherwise than in its *formal* condition, that is, to conceive of the maxims of the will as conformable to universal laws.

Reason would, therefore, completely transcend its proper limits, if it should undertake to *explain how* pure reason can be practical, or, what is the same thing, to explain *how* freedom is possible.

We can explain nothing but that which we can reduce to laws, the object of which can be presented in a possible experience. Freedom, however, is a mere idea, the objective reality of which can in no way be presented in accordance with laws of nature, and, therefore, not in any possible experience. It has merely the necessity of a presupposition of reason, made by a being who believes himself to be conscious of a will, that is, of a faculty distinct from mere desire. The most that we can do is to *defend* freedom by removing the objections of those who claim to have a deeper insight into the nature of things than we can pretend to have, and who therefore, declare that freedom is impossible. It would no doubt be a contradiction to say that in its causality the will is entirely separated from all the laws of the sensible world. But the contradiction disappears, if we say, that behind phenomena there are things in themselves, which, though they are hidden from us, are the condition of phenomena; and that the laws of action

of things in themselves naturally are not the same as the laws under which their phenomenal manifestations stand.

While, therefore, it is true that we cannot comprehend the practical unconditioned necessity of the moral imperative, it is also true that we can comprehend its *incomprehensibility;* and this is all that can fairly be demanded of a philosophy which seeks to reach the principles which determine the limits of human reason.

CHAPTER XXVI

ETHICS AND SOCIAL PHILOSOPHY

1. Intuitionism

A classic statement of the view that moral judgments are intuitive is the following from Martineau:[1]

Next, we may attend to the mode of moral judgment, and determine how the mind proceeds in estimating its own impulses and volitions. For, process of some kind there must be: every verdict implies preference; every preference, comparison; every comparison, things compared, and grounds of resemblance and difference between them. To define these is to explain our mode of judgment.

(1) The one great condition which raises the spontaneous into the self-conscious life is this:—the simultaneous presence and collision of the forces which check and exclude each other. Without the encounter of bodies, the dream of mere sensation would not wake into perception. Without the answering face of other men, the sense of personal existence would remain dim. And without the appearance in us of two incompatible impulses at once, or the interruption of one by the invasion of another, the moral self-consciousness would sleep. It is not *difference only* that suffices to produce the effect; for differences might

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[1] Martineau, *Types of Ethical Theory*, Vol. II, pp. 43–48 (The Clarendon Press, Oxford, 3rd ed., 1891); reprinted by permission. James Martineau (1805–1900) was an English clergyman, philosopher and educator; for some time professor in Manchester New College. The *Types of Ethical Theory* was first published at Oxford in 1882.

coexist among objects side by side in the space before us, yet would they never disengage themselves into view, did they not break their stillness and move among themselves; and living impulses might successively occupy us, yet would they never become objects of our attention, did each one spend itself and fade ere the next appeared, so that we were picked up by them one by one, and caught disengaged in every case. From this state we are rescued by perpetual 'breach of the peace' within our nature, and the clamour of impatient propensities disputing for simultaneous admission, or prematurely cutting short the career of the principle in possession. It is only when the *difference amounts to strife,* that it completes the passage from spontaneity to self-consciousness. This perhaps is part of the meaning embraced in the celebrated proposition of Heracleitus, that 'strife is the father of all things:' though in his doctrine, that nothing could arise without the collision of opposites, the subjective world was less in view than the objective. Be that as it may, the maxim has a just application to the phenomena of our moral life. It is not till two incompatible impulses appear in our consciousness and contest the field, that we are made aware of their difference and are driven to judge between them. But the moment this condition is realized, we are sensible of a contrast between them other than that of mere intensity or of qualitative variety,—not analogous to the difference between loud and soft, or between red and sour;—but requiring quite a separate phraseology for its expression, such as this: that one is *higher, worthier,* than the other, and, in comparison with it, has the clear *right to us.* This apprehension is no mediate discovery of ours, of which we can give an account; but is immediately inherent in the very experience of the principles themselves,—a revelation inseparable from their appearance side by side. By simply entering the stage together and catching the inner eye, they

disclose their respective worth and credentials. A child, for example, not above the seductions of the jam-closet, finding himself alone in that too trying place, makes hurried inroads upon the sweetmeats within tempting reach; but has scarcely sucked the traces from his fingers before he is ready to sink into the earth with compunction, well knowing that the appetite he has indulged is meaner than the integrity he has violated. A passionate boy will vent his impatience on any inanimate object that obstructs his purpose, splitting his unsuccessful peg-tops, or breaking his tangled fishing-line; and will accuse himself of no wrong. But let his paroxysm spend itself on a sister, and send her wounded and crying away; and the instant remorse brings home to him how much higher is the affection he has slighted than the resentment he has allowed. The thirsty traveler in the desert would seize, instinctively and without a thought, the draught from the spring he has found at last; but if he have a companion faint and dying of the fever, he knows that his appetite must give precedence to his compassion, and he holds the cup of cold water first to another's lips. In these cases,—and they appear to me fair representatives of all our moral experience,—the very same impulses which, when sole occupants, would carry us unreflectingly and unreluctantly to their end, instantly appear in their true relative light when their field is disputed by a rival. Nothing more is needed, and nothing less will serve, than their juxtaposition and their incompatibility. There is no analysis or research required; it is a choice of Hercules, only without the reasoning and the rhetoric; the claims are decided by a glance at their face. We cannot follow both; and we cannot doubt the rights and place of either. Their *moral valuation* intuitively results from their *simultaneous appearance.*

Here, however, complaint may be reasonably made of the inexact, even half mystical language, in which the re-

lation between the conflicting springs of action has been described. They have been contrasted as *'higher and lower.'* These terms are *comparatives;* and with this peculiarity, that their *positives,* 'high' and 'low,' do not, like 'red' and 'hard,' introduce us to two heterogeneous predicates, but only to a 'more' or 'less' of the same, so as still to detain us among mere comparatives. *'High'* carries us towards one extremity, *'low'* towards the other, of some one extended and graduated whole. What then is that whole? How are we to name the underlying quantity or quality, on which these degrees are measured off? As they are not physical altitudes, they must stand upon something inherent in our springs of action, which, in its differences, affects us similarly to varieties of elevation. Till this 'something' is specified, the propositions which assert 'more' or 'less' are propositions about Nothing.

I admit at once the justice of this demand, and the difficulty of meeting it at this stage, where nevertheless it naturally arises. To ask after the *quality* of an object is to ask about the way in which it affects us, *i. e.,* about a feeling of our own from its presence or idea. The *springs of action* are here our object: the question therefore is, in virtue of what kind of feeling in us, excited by all of them, with intensity varied in each, do we apply to them the comparative language in the foregoing description? If I follow impulse A, instead of B, my volition will be 'higher,'—in what scale?—of pleasure? Not so, or I should enjoy the stolen sweetmeats without drawback, instead of being ashamed of them. Of beauty? Not so, for I have no such feeling from my pug-nose, though I wish it were straight. I can only say, that, good as these things may be, it is another sort of good whose degrees affect me here; involving, what they do not, a sense of *Duty,* of *Right and Wrong,* of *Moral* worth, and a con-

sciousness that I am *not at liberty,* though perfectly able, to go with the impulse B. The degrees therefore, I should say, are marked on the scale of *dutifulness,* of *rightness,* of *morality;* and in treating as ultimate and essential the attribute which these words designate, I support myself on the judgment of Professor Sidgwick, who 'regards it as a clear result of reflection that the notions of right and wrong, as peculiar to moral cognition, are *unique and unanalyzable.*' Of the several words available for naming this quality, '*Moral worth*' seems the most eligible (1) as applicable to what presents *gradations* of value; and (2) as exempt from intrusive associations. 'Duty,' and 'Right,' are so habitually used of single problems and concrete cases, where there is *one good* course and *one bad,* that they represent prominently the *dual* antithesis of each separate moral experience, and do not easily lend themselves to the expression of relative intensities of excellence through the whole system of ethical combinations of motive. The word 'Virtue' is very tempting, from its covering an indefinite number of gradations; but it has two disadvantages: (1) its gradations are only on the *upper side* of the neutral level, and, to mark the *minus values* of which we almost always have to speak at the same time, other language must be sought; and (2) an association of extra merit, constituting an approach *to the heroic,* clings to the word, and fits it chiefly for special cases where temptation is above the average.

Is it thought strange that a 'unique unanalyzable' quality, whether of an action (as Professor Sidgwick would say), or of a spring of action (as I should prefer), should fail to reveal itself so long as the object was isolated, and should first be discovered when brought up by a double object? Even in our physical life, such experiences are not unknown: *e. g.,* of *heat* we should have no suspicion, if the temperature were always the same in our

own organism and around it; the loss of equilibrium discloses its existence. But, besides this, the *moral* quality arises, not barely from the interplay between the object and ourselves, but in the relation of *two objects to one another;* and can no more exist without them, than fraternity can belong to a solitary man, or a convex surface present itself without a concave. In truth, the quality which we get to know does not really belong to *each* object, but is inherent in the pair as a dual object; and not only could not be *cognized,* but would not *exist,* till they fell into combination.

2. Teleologism

The theory that goodness is measured by the general results attained is formulated in Mill's famous essay, "Utilitarianism," from which the following is taken: [2]

The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure. To give a clear view of the moral standard set up by the theory, much more requires to be said; in particular, what things it includes in the ideas of pain and pleasure; and to what extent this is left an open question. But these supplementary explanations do not affect the theory of life on which this theory of morality is grounded—namely, that pleasure, and freedom from pain, are the only things desirable as ends; and that all desir-

[2] Mill, J. S., *Utilitarianism,* from Ch. ii.
John Stuart Mill (1806–1873) was secretary of the East India Company, and a writer on political, social and philosophical subjects. Among his writings of note are his *System of Logic* and *Utilitarianism;* the latter a formulation of his ethical views. It was first published at London in 1863.

able things (which are as numerous in the utilitarian as in any other scheme) are desirable either for the pleasure inherent in themselves, or as means to the promotion of pleasure and the prevention of pain.

Now, such a theory of life excites in many minds, and among them in some of the most estimable in feeling and purpose, inveterate dislike. To suppose that life has (as they express it) no higher end than pleasure—no better and nobler object of desire and pursuit—they designate as utterly mean and groveling; as a doctrine worthy only of swine, to whom the followers of Epicurus were, at a very early period contemptuously likened; and modern holders of the doctrine are occasionally made the subject of equally polite comparisons by its German, French, and English assailants.

When thus attacked, the Epicureans have always answered, that it is not they, but their accusers, who represent human nature in a degrading light, since the accusation supposes human beings to be capable of no pleasures except those of which swine are capable. If this supposition were true, the charge could not be gainsaid, but would then be no longer an imputation; for if the sources of pleasure were precisely the same to human beings and to swine, the rule of life which is good enough for the one would be good enough for the other. The comparison of the Epicurean life to that of beasts is felt as degrading, precisely because a beast's pleasures do not satisfy a human being's conceptions of happiness. Human beings have faculties more elevated than the animal appetites, and when once made conscious of them, do not regard anything as happiness which does not include their gratification. I do not, indeed, consider the Epicureans to have been by any means faultless in drawing out their scheme of consequences from the utilitarian principle. To do this in any sufficient manner, many Stoic, as well as Christian

elements require to be included. But there is no known Epicurean theory of life which does not assign to the pleasures of the intellect, of the feelings and imagination, and of the moral sentiments, a much higher value as pleasures than to those of mere sensation. It must be admitted, however, that utilitarian writers in general have placed the superiority of mental over bodily pleasures chiefly in the greater permanency, safety, uncostliness, etc., of the former—that is, in their circumstantial advantages rather than in their intrinsic nature. And on all these points utilitarians have fully proved their case: but they might have taken the other, and, as it may be called, higher ground, with entire consistency. It is quite compatible with the principle of utility to recognize the fact, that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone.

If I am asked, what I mean by difference of quality in pleasures, or what makes one pleasure more valuable than another, merely as a pleasure, except its being greater in amount, there is but one possible answer. Of two pleasures, if there be one to which all or almost all who have experience of both give a decided preference, irrespective of any feeling of moral obligation to prefer it, that is the more desirable pleasure. If one of the two is, by those who are competently acquainted with both, placed so far above the other that they prefer it, even though knowing it to be attended with a greater amount of discontent, and would not resign it for any quantity of the other pleasure which their nature is capable of, we are justified in ascribing to the preferred enjoyment a superiority in quality, so far outweighing quantity as to render it, in comparison, of small account.

Now it is an unquestionable fact that those who are equally acquainted with, and equally capable of appreciating and enjoying, both, do give a most marked preference to the manner of existence which employs their higher faculties. Few human creatures would consent to be changed into any of the lower animals, for a promise of the fullest allowance of a beast's pleasures; no intelligent human being would consent to be a fool, no instructed person would be an ignoramus, no person of feeling and conscience would be selfish and base, even though they should be persuaded that the fool, the dunce, or the rascal is better satisfied with his lot than they are with theirs. They would not resign what they possess more than he for the most complete satisfaction of all the desires which they have in common with him. If they ever fancy they would, it is only in cases of unhappiness so extreme, that to escape from it they would exchange their lot for almost any other, however undesirable in their own eyes. A being of higher faculties requires more to make him happy, is capable probably of more acute suffering, and certainly accessible to it at more points, than one of an inferior type; but in spite of these liabilities, he can never really wish to sink into what he feels to be a lower grade of existence. We may attribute it to pride, a name which is given indiscriminately to some of the most and to some of the least estimable feelings of which mankind are capable: we may refer it to the love of liberty and personal independence, an appeal to which was with the Stoics one of the most effective means for the inculcation of it; to the love of power, or to the love of excitement, both of which do really enter into and contribute to it: but its most appropriate appellation is a sense of dignity, which all human beings possess in one form or other, and in some, though by no means in exact, proportion to their higher faculties, and which is so essential a part of the happiness

of those in whom it is strong, that nothing which conflicts with it could be, otherwise than momentarily, an object of desire to them. Whoever supposes that this preference takes place at a sacrifice of happiness—that the superior being, in anything like equal circumstances, is not happier than the inferior—confounds the two very different ideas, of happiness, and content. It is indisputable that the being whose capacities of enjoyment are low, has the greatest chance of having them fully satisfied; and a highly endowed being will always feel that any happiness which he can look for, as the world is constituted, is imperfect. But he can learn to bear its imperfections, if they are at all bearable; and they will not make him envy the being who is indeed unconscious of the imperfections, but only because he feels not at all the good which those imperfections qualify. It is better to be a human being dissatisfied than a pig satisfied; better to be a Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides.

It may be objected, that many who are capable of the higher pleasures, occasionally, under the influence of temptation, postpone them to the lower. But this is quite compatible with a full appreciation of the intrinsic superiority of the higher. Men often, from infirmity of character, make their election for the nearer good, though they know it to be the less valuable; and this no less when the choice is between two bodily pleasures, than when it is between bodily and mental. They pursue sensual indulgences to the injury of health, though perfectly aware that health is the greater good. It may be further objected, that many who begin with youthful enthusiasm for everything noble, as they advance in years sink into indolence and selfishness. But I do not believe that those who un-

dergo this very common change, voluntarily choose the lower description of pleasures in preference to the higher. I believe that before they devote themselves exclusively to the one, they have already become incapable of the other. Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance; and in the majority of young persons it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favorable to keeping that higher capacity in exercise. Men lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity for indulging them; and they addict themselves to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access, or the only ones which they are any longer capable of enjoying. It may be questioned whether any one who has remained equally susceptible to both classes of pleasures, ever knowing and calmly preferred the lower; though many, in all ages, have broken down in an ineffectual attempt to combine both.

From this verdict of the only competent judges, I apprehend there can be no appeal. On a question which is the best worth having of two pleasures, or which of two modes of existence is the most grateful to the feelings, apart from its moral attributes and from its consequences, the judgment of those who are qualified by knowledge of both, or, if they differ, that of the majority among them, must be admitted as final. And there needs be the less hesitation to accept this judgment respecting the quality of pleasures, since there is no other tribunal to be referred to even on the question of quantity. What means are there of determining which is the acutest of two pains, or the intensest of two pleasurable sensations, except the gen-

eral suffrage of those who are familiar with both? Neither pains nor pleasures are homogeneous, and pain is always heterogeneous with pleasure. What is there to decide whether a particular pleasure is worth purchasing at the cost of a particular pain, except the feelings and judgment of the experienced? When, therefore, those feelings and judgment declare the pleasures derived from the higher faculties to be preferable *in kind,* apart from the question of intensity, to those of which the animal nature, disjoined from the higher faculties, is susceptible, they are entitled on this subject to the same regard.

I have dwelt on this point, as being a necessary part of a perfectly just conception of Utility or Happiness, considered as the directive rule of human conduct. But it is by no means an indispensable condition to the acceptance of the utilitarian standard; for that standard is not the agent's own greatest happiness, but the greatest amount of happiness altogether; and if it may possibly be doubted whether a noble character is always the happier for its nobleness, there can be no doubt that it makes other people happier, and that the world in general is immensely a gainer by it. Utilitarianism, therefore, could only attain its end by the general cultivation of nobleness of character, even if each individual were only benefited by the nobleness of others, and his own, so far as happiness is concerned, were a sheer deduction from the benefit. But the bare enunciation of such an absurdity as this last, renders refutation superfluous.

According to the Greatest Happiness Principle, as above explained, the ultimate end, with reference to and for the sake of which all other things are desirable (whether we are considering our own good or that of other people), is an existence exempt as far as possible from pain, and as rich as possible in enjoyments, both in point of quantity

and quality, the test of quality, and the rule for measuring it against quantity, being the preference felt by those who in their opportunities of experience, to which must be added their habits of self-consciousness and self-observation, are best furnished with the means of comparison. This, being, according to the utilitarian opinion, the end of human action, is necessarily also the standard of morality; which may accordingly be defined, the rules and precepts for human conduct, by the observance of which an existence such as has been described might be, to the greatest extent possible, secured to all mankind; and not to them only, but, so far as the nature of things admits, to the whole sentient creation.

Against this doctrine, however, arises another class of objectors, who say that happiness, in any form, cannot be the rational purpose of human life and action; because, in the first place, it is unattainable: and they contemptuously ask, What right hast thou to be happy? a question which Mr. Carlyle clenches by the addition, "What right, a short time ago, hadst thou even *to be?*" Next, they say, that men can do *without* happiness; that all noble human beings have felt this, and could not have become noble but by learning the lesson of Entsagen, or renunciation; which lesson, thoroughly learned and submitted to, they affirm to be the beginning and necessary condition of all virtue.

The first of these objections would go to the root of the matter were it well founded; for if no happiness is to be had at all by human beings, the attainment of it cannot be the end of morality, or of any rational conduct. Though, even in that case, something might still be said for the utilitarian theory; since utility includes not solely the pursuit of happiness, but the prevention or mitigation of unhappiness; and if the former aim be chimerical, there will be all the greater scope and more and more imperative need for the latter, so long at least as mankind think fit

to live, and do not take refuge in the simultaneous act of suicide recommended under certain conditions by Novalis. When, however, it is thus positively asserted to be impossible that human life should be happy, the assertion, if not something like a verbal quibble, is at least an exaggeration. If by happiness be meant a continuity of highly pleasurable excitement, it is evident enough that this is impossible. A state of exalted pleasure lasts only moments, or in some cases, and with some intermissions, hours or days, and is the occasional brilliant flash of enjoyment, not its permanent and steady flame. Of this the philosophers who have taught that happiness is the end of life were as fully aware as those who taunt them. The happiness which they meant was not a life of rapture; but moments of such, in an existence made up of few and transitory pains, many and various pleasures, with a decided predominance of the active over the passive, and having as the foundation of the whole, not to expect more from life than it is capable of bestowing. A life thus composed, to those who have been fortunate enough to obtain it, has always appeared worthy of the name of happiness. And such an existence is even now the lot of many, during some considerable portion of their lives. The present wretched education, and wretched social arrangements, are the only real hindrance to its being attainable by almost all.

The objectors perhaps may doubt whether human beings, if taught to consider happiness as the end of life, would be satisfied with such a moderate share of it. But great numbers of mankind have been satisfied with much less. The main constitutents of a satisfied life appear to be two, either of which by itself is often found sufficient for the purpose: tranquillity, and excitement. With much tranquillity, many find that they can be content with very little pleasure: with much excitement, many can reconcile

themselves to a considerable quantity of pain. There is assuredly no inherent impossibility in enabling even the mass of mankind to unite both; since the two are so far from being incompatible that they are in natural alliance, the prolongation of either being a preparation for, and exciting a wish for, the other. It is only those in whom indolence amounts to a vice, that do not desire excitement after an interval of repose: it is only those in whom the need of excitement is a disease, that feel the tranquillity which follows excitement dull and insipid, instead of pleasurable in direct proportion to the excitement which preceded it. When people who are tolerably fortunate in their outward lot do not find in life sufficient enjoyment to make it valuable to them, the cause generally is, caring for nobody but themselves. To those who have neither public nor private affections, the excitements of life are much curtailed, and in any case dwindle in value as the time approaches when all selfish interests must be terminated by death: while those who leave after them objects of personal affection, and especially those who have also cultivated a fellow-feeling with the collective interests of mankind, retain as lively an interest in life on the eve of death as in the vigor of youth and health. Next to selfishness, the principal cause which makes life unsatisfactory is want of mental cultivation. A cultivated mind—I do not mean that of a philosopher, but any mind to which the fountains of knowledge have been opened, and which has been taught, in any tolerable degree, to exercise its faculties—finds sources of inexhaustible interest in all that surrounds it; in the objects of nature, the achievements of art, the imaginations of poetry, the incidents of history, the ways of mankind, past and present, and their prospects in the future. It is possible, indeed, to become indifferent to all this, and that too without having exhausted a thousandth part of it; but only when one has

had from the beginning no moral or human interest in these things, and has sought in them only the gratification of curiosity.

Now there is absolutely no reason in the nature of things why an amount of mental culture sufficient to give an intelligent interest in these objects of contemplation should not be the inheritance of every one born in a civilized country. As little is there an inherent necessity that any human being should be a selfish egotist, devoid of every feeling or care but those which center in his own miserable individuality. Something far superior to this is sufficiently common even now, to give ample earnest of what the human species may be made. Genuine private affections, and a sincere interest in the public good, are possible, though in unequal degrees, to every rightly brought up human being. In a world in which there is so much to enjoy, and so much also to correct and improve, every one who has this moderate amount of moral and intellectual requisites is capable of an existence which may be called enviable; and unless such a person, through bad laws, or subjection to the will of others, is denied the liberty to use the sources of happiness within his reach, he will not fail to find this enviable existence, if he escape the positive evils of life, the great sources of physical and mental suffering—such as indigence, disease, and the unkindness, worthlessness, or premature loss of objects of affection. The main stress of the problem lies, therefore, in the contest with these calamities, from which it is a rare good fortune entirely to escape; which, as things now are, cannot be obviated, and often cannot be in any material degree mitigated. Yet no one whose opinion deserves a moment's consideration can doubt that most of the great positive evils of the world are in themselves removable, and will, if human affairs continue to improve, be in the end reduced within narrow limits. Poverty, in

any sense implying suffering, may be completely extinguished by the wisdom of society, combined with the good sense and providence of individuals. Even that most intractable of enemies, disease, may be indefinitely reduced in dimensions by good physical and moral education, and proper control of noxious influences; while the progress of science holds out a promise for the future of still more direct conquests over this detestable foe. And every advance in that direction relieves us from some, not only of the chances which cut short our own lives, but, what concerns us still more, which deprive us of those in whom our happiness is wrapt up. As for vicissitudes of fortune, and other disappointments connected with worldly circumstances, these are principally the effect either of gross imprudence, of ill-regulated desires, or of bad or imperfect social institutions. All the grand sources, in short, of human suffering are in a great degree, many of them almost entirely, conquerable by human care and effort; and though their removal is grievously slow—though a long succession of generations will perish in the breach before the conquest is completed, and this world becomes all that, if will and knowledge were not wanting, it might easily be made—yet every mind sufficiently intelligent and generous to bear a part, however small and unconspicuous, in the endeavor, will draw a noble enjoyment from the contest itself, which he would not for any bribe in the form of selfish indulgence consent to be without.

And this leads to the true estimation of what is said by the objectors concerning the possibility, and the obligation, of learning to do without happiness. Unquestionably it is possible to do without happiness; it is done involuntarily by nineteen-twentieths of mankind, even in those parts of our present world which are least deep in barbarism; and it often has to be done voluntarily by the hero or the martyr, for the sake of something which he prizes more

than his individual happiness. But this something, what is it, unless the happiness of others, or some of the requisites of happiness? It is noble to be capable of resigning entirely one's own portion of happiness, or chances of it: but, after all, this self-sacrifice must be for some end; it is not its own end; and if we are told that its end is not happiness, but virtue, which is better than happiness, I ask, would the sacrifice be made if the hero or martyr did not believe that it would earn for others immunity from similar sacrifices? Would it be made if he thought that his renunciation of happiness for himself would produce no fruit for any of his fellow creatures, but to make their lot like his, and place them also in the condition of persons who have renounced happiness? All honor to those who can abnegate for themselves the personal enjoyment of life, when by such renunciation they contribute worthily to increase the amount of happiness in the world; but he who does it, or professes to do it, for any other purpose, is no more deserving of admiration than the ascetic mounted on his pillar. He may be an inspiriting proof of what men *can* do, but assuredly not an example of what they *should*.

Though it is only in a very imperfect state of the world's arrangements that any one can best serve the happiness of others by the absolute sacrifice of his own, yet so long as the world is in that imperfect state, I fully acknowledge that the readiness to make such a sacrifice is the highest virtue which can be found in man. I will add that in this condition of the world, paradoxical as the assertion may be, the conscious ability to do without happiness gives the best prospect of realizing such happiness as is attainable. For nothing except that consciousness can raise a person above the chances of life, by making him feel that, let fate and fortune do their worst, they have not power to subdue him: which, once felt, frees him

from excess of anxiety concerning the evils of life, and enables him, like many a Stoic in the worst times of the Roman Empire, to cultivate in tranquillity the sources of satisfaction accessible to him, without concerning himself about the uncertainty of their duration, any more than about their inevitable end.

Meanwhile, let utilitarians never cease to claim the morality of self-devotion as a possession which belongs by as good a right to them, as either to the Stoic or the Transcendentalist. The utilitarian morality does recognize in human beings the power of sacrificing their own greatest good for the good of others. It only refuses to admit that the sacrifice is itself a good. A sacrifice which does not increase, or tend to increase, the sum total of happiness, it considers as wasted. The only self-renunciation which it applauds, is devotion to the happiness, or to some of the means of happiness, of others; either of mankind collectively, or of individuals within the limits imposed by the collective interests of mankind.

3. Individualism

Individualism as the key to the good of life was strongly advocated by Herbert Spencer. His views are typified by the following: [3]

A function to each organ, and each organ to its own function, is the law of all organization. To do its work well, an apparatus must possess special fitness for that work; and this will amount to *un*fitness for any other work. The lungs cannot digest, the heart cannot respire, the stomach cannot propel blood. Each muscle and each gland must have its own particular nerve. There is not a fiber in the body but what has a channel to bring it food,

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[3] Spencer, H., *Social Statics,* pp. 301–306 (D. Appleton & Co., 1883); used by permission.

For note on Spencer, see p. 10.

a channel to take its food away, an agency for causing it to assimilate nutriment, an agency for stimulating it to perform its peculiar duty, and a mechanism to take away effete matter; not one of which can be dispensed with. Between creatures of the lowest type, and creatures of the highest, we similarly find the essential difference to be, that in the one the vital actions are carried on by a few simple agents, whilst in the other the vital actions are severally decomposed into their component parts, and each of these parts has an agent to itself. In organizations of another order the same principle is apparent. When the manufacturer discovered that by confining each of his employés wholly to one process, he could immensely increase the productive powers of his establishment, he did but act upon this same rule, of one function to one organ. If we compare the mercantile arrangements of a village with those of a city, we shall find that the hucksters of the one carry on many trades each, whilst every shopkeeper of the other confines himself to a single trade; showing us how a highly-developed apparatus for the distribution of commodities is similarly distinguished by subdivision of duties. Language, too, exemplifies the same truth. Between its primitive state, in which it consisted of nothing but nouns, used vaguely to indicate all ideas indiscriminately, and its present state, in which it consists of numerous "parts of speech," the process of growth has been that of gradually separating words into classes serving different purposes; and just as fast as this process has advanced, has language become capable of completely fulfilling its end.

May we not, then, suspect that the assigning of one function to one organ, is the condition of efficiency in all instrumentalities? If, as far as we can see, such is the law not only of natural organizations, but of what, in a superficial sense, we call artificial ones, does it not seem

probable that it is the universal law? Will it not be the law of institutions? Will it not be the law of the state? Must we not expect that with a government also, special adaptation to one end implies non-adaptation to other ends? And is it not likely that by devolving on a government additional functions, the due discharge of its peculiar function will be sacrificed? And would not this imply that a government ought not to undertake such additional functions?

But laying aside analogy, let us inquire whether it is not the fact, that, in assuming any office besides its original one, the state begins to lose the power of fulfilling that original one. What is it that we call the state? Men politically associated. How associated? Voluntarily. For what purpose? For mutual protection. Men voluntarily associated for mutual protection: this then is our definition. Now, when rightly ordered, the conditions on which this voluntary association offers its services, must be such as enable it to afford the greatest amount of protection possible. If otherwise—if it insists on non-essential conditions which prevent some men from accepting its services, it manifestly fails to that extent in performing its function. Now the moment the state undertakes a second office it does all this. Men leagued together for a special object will never unanimously agree in the pursuit of any other object. So long as our joint-stock protection-society confines itself to guaranteeing the rights of its members, it is pretty certain to be coextensive with the nation; for whilst such an organization is needed at all, most men will sacrifice something to secure its guardianship. But let an additional duty be assigned to it, and there will immediately arise more or less schism. The dissenting minority may in such case consist of two parties; the one comprising those who have so great a repugnance to the contemplated arrangement, as to resolve upon seceding rather than consent to

it; and a larger party consisting of those who grumble at the imposition of additional charges for the doing what they do not wish to be done, but who think well to submit rather than give up the benefits of protection. Toward both these parties the state fails in its duty. The one it drives away by disadvantageous terms; and from the other it exacts sacrifices beyond what are needful for the performance of its original function; and by so doing becomes an aggressor instead of a protector. Observe how the case stands when put personally.

"Your taxes are heavier this year than last," complains a citizen to the government; "how is it?"

"The sums voted for these new school-houses, and for the salaries of the masters and mistresses, have increased the draught upon our exchequer," replies the government.

"School-houses, masters and mistresses—what have I to do with these? you are not charging me with the cost of them, are you?"

"Yes."

"Why, I never authorized you to do so."

"True; but parliament, or in other words, the majority of the nation, has decided that the education of the young shall be entrusted to us, and has authorized us to raise such funds as may be necessary for fulfilling this trust."

"But suppose I wish to superintend the education of my children myself?"

"You may do as you please; but you must pay for the privilege we offer, whether you avail yourself of it or not. Even if you have no children you must still pay."

"And what if I refuse?"

"Why, were we to act up to old precedents, we should punish you; but as things now stand we shall content ourselves with giving notice that you have outlawed yourself."

"Nay, I have no wish to do that; I cannot at present dispense with your protection."

"Very well, then you must agree to our terms, and pay your share of the new tax."

"See, now, what a dilemma you place me in. As I dare not relinquish the protection I entered into political combination to obtain, I must either give you a part of my property for nothing; or, should I make a point of having some equivalent, I must cease to do that which my natural affections prompt. Will you answer me a few questions?"

"Certainly."

"What is it that you, as a national executive, have been appointed for? Is it not to maintain the rights of those who employ you; or, in other words, to guarantee to each the fullest freedom for the exercise of his faculties compatible with the equal freedom of all others?"

"It has been so decided."

"And it has been also decided that you are justified in diminishing this freedom only to such extent as may be needful for preserving the remainder, has it not?"

"That is evidently a corollary."

"Exactly. And now let me ask what is this property, this money, of which in the shape of taxes you are demanding from me an additional amount? Is it not that which enables me to get food, clothing, shelter, recreation, or, to repeat the original expression—that on which I depend for the exercise of most of my faculties?"

"It is."

"Therefore to decrease my property is to decrease my freedom to exercise my faculties, is it not?"

"Clearly."

"Then this new impost of yours will practically decrease my freedom to exercise my faculties?"

"Yes."

"Well, do you not now perceive the contradiction? In-

stead of acting the part of a protector you are acting the part of an aggressor. What you were appointed to guarantee me and others, you are now taking away. To see that the liberty of each man to pursue the objects of his desires is unrestricted, save by the like liberty of all, is your special function. To diminish this liberty by means of taxes, or civil restraints more than is absolutely needful for performing such function, is wrong, because adverse to the function itself. Now your new impost does so diminish this liberty more than is absolutely needful, and it is consequently unjustifiable."

Thus we find, as was foretold, that whenever the state begins to exceed its office of protector, it begins to lose protective power. Not a single supplementary service can it attempt without producing dissent; and in proportion to the amount of dissent so produced by it, the state defeats the end for which it was established. Let it undertake many additional duties, and there will be scarcely a man who does not object to being taxed on account of one or more of them—scarcely a man, therefore, to whom the state does not in some degree do the very opposite of what it is appointed to do. Now this thing which the state is appointed to do is the essential thing—the thing by which society is made possible; and these other things proposed to be done are non-essential, for society is possible without them. And as the essential ought not to be sacrificed to the non-essential, the state ought not to do any thing but protect.

4. Collectivism

The ethical argument for socialism is represented by the following passage from the writings of a recognized leader in socialistic thought: [4]

If it were admitted that the establishment of such a sys-

[4] Sidney Olivier, "*The Basis of Socialism,*" *Moral, Fabian Essays*

tem would guarantee just this much—that abject poverty should be done away, and that every man and woman should be insured the opportunity of obtaining sufficient food and covering in return for a moderate day's work, we might still be far from convincing some people that the realization of that ideal would be a good thing for the world. There are still a great many who, though they may not join in the common prophecy that the chief result of such a system would be an increase of beer-drinking and other stupid self-indulgence, yet regard starvation and misery as part of the inevitable order of nature, and as necessary conditions of progress, conducive to the survival of what they are pleased to call the "fittest" types of life. Such critics see danger to progress in any attempt to enroll intelligence and adaptiveness into conscious combination against starvation and misery, to extinguish by concerted effort survivals of the accidents of primitive barbarism against which as individuals we are always struggling. This aim of Socialism, accordingly, does not wholly commend itself to their moral judgment, to their opinion of what is *good* in the widest sense, although they may willingly admit that the aim possesses a certain element of short-sighted good intention. Other persons, influenced by religious conceptions older than that of progress, and regarding morality less as determined by reference to that end than as a concern of the individual, a certain state of the soul of each man, are inclined to view the material evils which Socialists desire to get rid of, as a necessary schooling and discipline without which individual morality would decay.

Against these doctrines Socialists would maintain that

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in Socialism, p. 95 (The Humboldt Publishing Co., New York); reprinted by permission.

Sir Sidney Olivier (1859– —) is an English writer and statesman, for some years secretary of the Fabian Society.

the ordering of our national life, and of the relations between individuals and social groups throughout the world in accordance with the principles of Socialism, is the effectual and indispensable process for insuring to the mass of mankind the advantages of progress already effected and its continued and orderly development, and for the realization, in individuals and the State, of the highest morality as yet imagined by us.

The[5] recognition by each individual of his dependence on society or sensitiveness to his own interest, and his affection toward society or sensitiveness to its interest: these two faces of the same fact represent an intricate tissue of social consciousness extremely sensitive to all kinds of anti-social, or immoral, action. The moral education of the individual appears formally as the process of learning, by sheer extension of knowledge and experience, and nothing else, how he may harmonize and follow out his own desires in these two aspects and their combinations. He has to learn how to provide for the needs of his bodily life in a manner that will not interfere with the freedom of others to do the same. Laws and conventions of morality guide him at first in this respect; but the man cannot be said to be free until he acts morally, because, foreseeing that on the satisfaction of these primary needs new desires will emerge whose satisfaction will give him a more exquisite contentment, he perceives that it is reasonable so to act. The existence and stability of society are the indispensable guarantee for the general satisfaction of the primary desires of individuals, therefore it is unreasonable to weaken society by immoral action; but much more are the existence and health of society indispensable conditions for the common birth and satisfaction

[5] *Ibid.*, p. 107.

of the secondary desires, the desires which have created all that is most valuable in civilization and which find their satisfaction in art, in culture, in human intercourse, in love. The moral education of the individual is the lesson, not that desire is evil, and that he can only attain his freedom by ceasing to desire, for this is death, or desertion, and the army of the living presses on to fuller life; but that the wider, fuller satisfaction is built upon the simpler, and common morality a condition of its possibility; that there are certain manners and methods in which, if he goes about to save his life, he most infallibly will lose it; and that love, the social instinct, and science, which is ordered knowledge, are his only reliable tutors in practical morality.

But man in society not only lives his individual life: he also modifies the form of social institutions in the direction indicated by reason—in such a manner, that is, as it seems to his understanding will render them more efficient for securing freedom for that life of his. And just as certain forms of individual activity, in their passage into and through the field of positive criticism, appear first as indifferent, because they seem to concern the individual only, then as moral or immoral, because recognized as affecting society, later as simply rational or insane, morality having here formally attained its identification with reason and immorality with folly, and at last become habitual, instinctive, and unconscious; so institutions, orginating in modes apparently accidental, come to be recognized as useful and valuable additions to the machinery of existence, are buttressed with all the authority and sanction of religion, and finally pass into unquestioned acceptance by the common-sense of men. In time some fundamental change in the conditions of the life of individuals is introduced by causes similarly unforeseen; the form of the old institution ceases

to subserve the common end; it begins to cramp the freedom of the majority, who no longer require its support. Meanwhile it has established a minority, ostensibly controlling it for the common weal, in a position to administer it in the sole interest of their class. These, as their existence appears dependent on their so administering it, cannot be untaught the habit except by such modification of the institution as will render it again impossible for any class to have a special interest in its contemporary form.

Socialists [6] contend that this system of private property in land and capital is actively destructive of the conditions in which alone the common morality necessary for happy social life is possible. Without any demand upon the faith of those persons who deny the capacity of average human nature for the temperance and kindliness indispensable for the success of a true coöperative commonwealth, they assert that this modern development of the property system (a development of the last few generations only, and unprecedented in the history of the world) is more and more forcing the individual into anti-social disposition and action, and thereby destroying the promise of free and full existence which only the health and progressive development of the social organism can give him. It has become plainly reasonable that when this is the effect of our property system we should modify our institutions in the direction which will give us freedom, just as we modified the institutions which subjected us to a feudal aristocracy, and abolished for ever the laws which enabled one man to hold another as his chattel slave.

There is on record a Greek proverb, that so soon as a man has insured a livelihood, then he should begin to

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[6] *Ibid.*, p. 110.

practice virtue. We all protest that he will do well to practice virtue under any circumstances; but we admit on reflection that our judgment as to what is virtuous action depends upon the circumstances under which action is to be taken. Whether we approve the killing of one man by another depends entirely on the circumstances of the case; and there is scarcely one of the acts which our laws regard as criminal, which could not, under imaginable circumstances, be justified. Our laws, and our conventional opinions as to what conduct is moral or immoral, are adapted to the ordinary circumstances of the average man in society, society being in them presumed to be homogeneous, not to contain in itself essential distinctions between classes, or great contrasts between the conditions of individuals.

But that element in our private property system which is at present the main object of the Socialist attack, the individual ownership of the instruments of production, land and capital, in an age when the use of those instruments has become coöperative, results, and must inevitably result, as the foregoing dissertations have sought to prove, in the division of society into two classes, whose very livelihood is insured to them by methods essentially different. The livelihood of the typical proletarian is earned by the exercise of his faculties for useful activity: the livelihood of the typical capitalist, or owner of property, is obtained, without any contribution of his or her activity, in the form of a pension called rent, interest, or dividend, guaranteed by law out of the wealth produced from day to day by the activities of the proletariat.

Observe the effect of this distinction in moral phenomena. Most of our common opinions as to social morality are adapted to a society in which every citizen is contributing active service. The most ancient and universal judgments of mankind as to the virtues of industry, of

honesty, of loyalty and forbearance between man and man, of temperance, fortitude and just dealing, point to the elementary conditions necessary for the survival and strengthening of societies of equal and free individuals dependent for their subsistence upon the exercise of each one's abilities, and upon his fitness for coöperation with his fellows. But where a class or society exists, not dependent upon its own industry, but feeding like a parasite upon another society or class; when the individuals of such a parasitic society in no way depend for their livelihood or their freedom upon their fitness for coöperation one with another among themselves, or upon any personal relation with the class that feeds them; then the observation of the moral conventions of industrial and coöperative societies is in many respects quite unnecessary for the continuance of the life of the parasitic society, or for the pleasant existence of the individuals composing it. All that is necessary is that the established laws and conventions should continue to be observed by the industrial class ("it is required *in stewards* that a man be found faithful"); and as the existence of the propertied class in modern societies does depend ultimately upon the observance by the bulk of the people of this conventional morality, the propertied class professes publicly to venerate and observe conventions which in its private practice it has long admitted to be obsolete. This complication is a perennial source of cant. To this we owe the spectacle of Sir William Harcourt advocating total abstinence, of Mr. Arthur Balfour commending Christianity; to this the continual inculcation of industry and thrift by idle and extravagant people, with many another edifying variation on the theme of Satan's reproval of sin. Temperance, Christian morality, industry, and economy are of considerable social utility; but for the members of a propertied class they are not necessitated by the conditions of

its existence, and consequently in such classes are neither observed nor commonly made the subject of moral criticism.

Consider the case of industry alone—of the moral habit of earning one's subsistence by useful activity. Assuming sustenance to be guaranteed, there is no obvious and pressing social necessity for such exertion. No doubt the paradise of the maid-of-all-work—where she means to do *nothing* for ever and ever—is the paradise of an undeveloped intelligence. A society relieved of the function of providing its own material sustenance need not relapse into general torpor, though the result is very commonly that an individual so circumstanced relapses into uselessness. It will be vain to preach to such an individual that he will find his fullest satisfaction in honest toil: he will simply laugh in your face, and go out partridge shooting, hunting, or yachting or to Monte Carlo or the Rocky Mountains, finding in such an exercise of his capacities the keenest imaginable enjoyment for months in succession. He may feel no inclination at all to work for the benefit of the people whose work is supporting him: all that he, like the rest of us, requires is to find some means of passing his time in an agreeable or exciting manner. Accordingly, in that section of our nation which speaks of itself as "society," being indeed a society separated by economic parasitism from the common mass, we find that the characteristic activity is the provision of agreeable and exciting methods of passing time. This being the end of fashionable society, its code of morality is naturally quite different from the code suitable for industrial societies. Truthfulness is preached in these as a cardinal virtue. Lying is, of course, common enough in all classes, and is generally immoral; but in the fashionable world it is not only a perfectly legitimate means of avoiding an undesired visitor, or almost any other unpleasant experi-

ence: it is a positive necessity of conventional politeness and good manners. It is really harmless here, almost a virtue. To return to the virtue of industry: though the conventional morality of the people, necessary for the life of the nation, permeates with its vibrations this parasitic society which it enfolds; and though the unfailing contentment which a really intelligent man finds in social activity keeps a good many of the propertied class usefully occupied, the actual public opinion of that class is absolutely in accordance with the conditions of their life. The clerk in a Government office is congratulated by middle-class acquaintances on his luck in obtaining a berth where he need do no more work than he chooses; and it is habitually assumed that he will choose, like the Trafalgar Square fountains, to play from ten to four, with an interval for lunch. That may or may not be an adequate account of his activities: the significant thing is that such an assumption should not be considered insulting. But how indignantly will the very same acquaintances denounce the idleness and untrustworthiness of a British working man suspected, in the service of a private master, of interpreting his time work as most servants of the public are good humoredly assumed, without hint of disapproval, to interpret theirs!

We [7] have glanced at some effects of our present property system which work continually for the destruction of the traditions of social morality in the capitalist class. The fundamental idea of that system, that man can live without working, as the angels of heaven, is (fortunately) self-contradictory in this respect, that in human society no class can so live except by the double labor of another class or classes.

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[7] *Ibid.*, 118.

CHAPTER XXVII

THE STATUS OF VALUES

1. Supernaturalism

Supernaturalism represents standards of value as given to man from a source and authority higher than he, by an external donation, as in the following classic instance:[1]

In the third month after the children of Israel were gone forth out of the land of Egypt, the same day came they into the wilderness of Sinai. And when they were departed from Rephidim, and were come to the wilderness of Sinai, they encamped in the wilderness; and there Israel encamped before the mount. And Moses went up unto God, and Jehovah called unto him out of the mountain, saying, Thus shalt thou say to the house of Jacob, and tell the children of Israel: Ye have seen what I did unto the Egyptians, and how I bare you on eagles' wings, and brought you unto myself. Now therefore, if ye will obey my voice indeed, and keep my covenant, then ye shall be mine own possession from among all peoples: for all the earth is mine: and ye shall be unto me a kingdom of priests, and a holy nation. These are the words which thou shalt speak unto the children of Israel.

And Moses came and called for the elders of the people, and set before them all these words which Jehovah commanded him. And all the people answered together, and said, All that Jehovah hath spoken we will do. And Moses reported the words of the people unto Jehovah.

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[1] *Exodus* xix; American Standard Edition, previously cited.

And Jehovah said unto Moses, Lo, I come unto thee in a thick cloud, that the people may hear when I speak with thee, and may also believe thee forever. And Moses told the words of the people unto Jehovah. And Jehovah said unto Moses, Go unto the people, and sanctify them to-day and to-morrow, and let them wash their garments, and be ready against the third day; for the third day Jehovah will come down in the sight of all the people upon mount Sinai. And thou shalt set bounds unto the people round about, saying, Take heed to yourselves, that ye go not up into the mount, or touch the border of it: whosoever toucheth the mount shall be surely put to death: no hand shall touch him, but he shall surely be stoned, or shot through; whether it be beast or man, he shall not live: when the trumpet soundeth long, they shall come up to the mount. And Moses went down from the mount unto the people, and sanctified the people; and they washed their garments. And he said unto the people, Be ye ready against the third day: come not near a woman.

And it came to pass on the third day, when it was morning, that there were thunders and lightnings, and a thick cloud upon the mount, and the voice of a trumpet exceeding loud; and all the people that were in the camp trembled. And Moses brought forth the people out of the camp to meet God; and they stood at the nether part of the mount. And mount Sinai, the whole of it, smoked, because Jehovah descended upon it in fire; and the smoke thereof ascended as the smoke of a furnace, and the whole mount quaked greatly. And when the voice of the trumpet waxed louder and louder, Moses spake, and God answered him by a voice. And Jehovah came down upon mount Sinai, to the top of the mount; and Jehovah called Moses to the top of the mount; and Moses went up. And Jehovah said unto Moses, Go down, charge the people, lest they break through unto Jehovah to gaze, and many of

them perish. And let the priests also, that come near to Jehovah, sanctify themselves, lest Jehovah break forth upon them. And Moses said unto Jehovah, The people cannot come up to mount Sinai: for thou didst charge us, saying, Set bounds about the mount, and sanctify it. And Jehovah said unto him, Go, and get thee down; and thou shalt come up, thou, and Aaron with thee: but let not the priests and the people break through to come up unto Jehovah, lest he break forth upon them. So Moses went down unto the people, and told them.

2. Agnostic Relativism

Russell, from whose essays the following passage is taken, is usually classed as a new realist. But the selection given here is a good expression of the spirit of Agnostic Relativism, the view that values are merely human and have no ultimate place in the universe: [2]

When first the opposition of fact and ideal grows fully visible, a spirit of fiery revolt, of fierce hatred of the gods, seems necessary to the assertion of freedom. To defy with Promethean constancy a hostile universe, to keep its evil always in view, always actively hated, to refuse no pain that the malice of Power can invent, appears to be the duty of all who will not bow before the inevitable. But indignation is still a bondage, for it compels our thoughts to be occupied with an evil world; and in the fierceness of desire from which rebellion springs, there is a kind of self-assertion which it is necessary for the wise to overcome. Indignation is a submission of our thoughts, but not of our desires; the Stoic freedom in which wisdom consists is found in the submission of our desires, but not our

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[2] Russell, B. A. W., *Mysticism and Logic*, essay entitled "A Free Man's Worship," pp. 51–57 (Longmans, Green and Co., 1918); used by permission of the publishers.

For note on Russell, see p. 312.

thoughts. From the submission of our desires springs the virtue of resignation; from the freedom of our thoughts springs the whole world of art and philosophy, and the vision of beauty by which, at last, we half reconquer the reluctant world. But the vision of beauty is possible only to unfettered contemplation, to thoughts not weighted by the load of eager wishes; and thus Freedom comes only to those who no longer ask of life that it shall yield them any of those personal goods that are subject to the mutations of Time.

Although the necessity of renunciation is evidence of the existence of evil, yet Christianity, in preaching it, has shown a wisdom exceeding that of the Promethean philosophy of rebellion. It must be admitted that, of the things we desire, some, though they prove impossible, are yet real goods; others, however, as ardently longed for, do not form part of a fully purified ideal. The belief that what must be renounced is bad, though sometimes false, is far less often false than untamed passion supposes; and the creed of religion, by providing a reason for proving that it is never false, has been the means of purifying our hopes by the discovery of many austere truths.

But there is in resignation a further good element: even real goods, when they are unattainable, ought not to be fretfully desired. To every man comes, sooner or later, the great renunciation. For the young, there is nothing unattainable; a good thing desired with the whole force of a passionate will, and yet impossible, is to them not credible. Yet, by death, by illness, by poverty, or by the voice of duty, we must learn, each one of us, that the world was not made for us, and that, however beautiful may be the things we crave, Fate may nevertheless forbid them. It is the part of courage, when misfortune comes, to bear without repining the ruin of our hopes, to turn away our thoughts from vain regrets. This degree of sub-

mission to Power is not only just and right; it is the very gate of wisdom.

But a passive renunciation is not the whole of wisdom; for not by renunciation alone can we build a temple for the worship of our own ideals. Haunting foreshadowings of the temple appear in the realm of imagination, in music, in architecture, in the untroubled kingdom of reason, and in the golden sunset magic of lyrics, where beauty shines and glows, remote from the touch of sorrow, remote from the fear of change, remote from the failures and disenchantments of the world of fact. In the contemplation of these things the vision of heaven will shape itself in our hearts, giving at once a touchstone to judge the world about us, and an inspiration by which to fashion to our needs whatever is not incapable of serving as a stone in the sacred temple.

Except for those rare spirits that are born without sin, there is a cavern of darkness to be traversed before that temple can be entered. The gate of the cavern is despair, and its floor is paved with the gravestones of abandoned hopes. There Self must die; there the eagerness, the greed of untamed desire must be slain, for only so can the soul be freed from the empire of Fate. But out of the cavern the Gate of Renunciation leads again to the daylight of wisdom, by whose radiance a new insight, a new joy, a new tenderness, shine forth to gladden the pilgrim's heart.

When, without the bitterness of impotent rebellion, we have learned both to resign ourselves to the outward rule of Fate and to recognize that the non-human world is unworthy of our worship, it becomes possible at last so to transform and refashion the unconscious universe, so to transmute it in the crucible of imagination, that a new image of shining gold replaces the old idol of clay. In all the multiform facts of the world—in the visual shapes

of trees and mountains and clouds, in the events of the life of man, even in the very omnipotence of Death—the insight of creative idealism can find the reflection of a beauty which its own thoughts first made. In this way mind asserts its subtle mastery over the thoughtless forces of Nature. The more evil the material with which it deals, the more thwarting to untrained desire, the greater is its achievement in inducing the reluctant rock to yield up its hidden treasures, the prouder its victory in compelling the opposing forces to swell the pageant of its triumph. Of all the arts, Tragedy is the proudest, the most triumphant; for it builds its shining citadel in the very center of the enemy's country, on the very summit of his highest mountain; from its impregnable watchtowers, his camps and arsenals, his columns and forts, are all revealed; within its walls the free life continues, while the legions of Death and Pain and Despair, and all the servile captains of tyrant Fate, afford the burghers of the dauntless city new spectacles of beauty. Happy those sacred ramparts, thrice happy the dwellers on that all-seeing eminence. Honor to those brave warriors who, through countless ages of warfare, have preserved for us the priceless heritage of liberty, and have kept undefiled by sacrilegious invaders the home of the unsubdued.

But the Beauty of Tragedy does but make visible a quality which, in more or less obvious shapes, is present always and everywhere in life. In the spectacle of Death, in the endurance of intolerable pain, and in the irrevocableness of a vanished past, there is a sacredness, an overpowering awe, a feeling of the vastness, the depth, the inexhaustible mystery of existence, in which, as by some strange marriage of pain, the sufferer is bound to the world by bonds of sorrow. In these moments of insight, we lose all eagerness of temporary desire, all struggling and striving for petty ends, all care for the little trivial things that, to a

superficial view, make up the common life of day by day; we see, surrounding the narrow raft illumined by the flickering light of human comradeship, the dark ocean on whose rolling waves we toss for a brief hour; from the great night without, a chill blast breaks in upon our refuge; all the loneliness of humanity amid hostile forces is concentrated upon the individual soul, which must struggle alone, with what of courage it can command, against the whole weight of a universe that cares nothing for its hopes and fears. Victory, in this struggle with the powers of darkness, is the true baptism into the glorious company of heroes, the true initiation into the overmastering beauty of human existence. From that awful encounter of the soul with the outer world, renunciation, wisdom, and charity are born; and with their birth a new life begins. To take into the inmost shrine of the soul the irresistible forces whose puppets we seem to be—Death and change, the irrevocableness of the past, and the powerlessness of man before the blind hurry of the universe from vanity to vanity—to feel these things and know them is to conquer them.

This is the reason why the Past has such magical power. The beauty of its motionless and silent pictures is like the enchanted purity of late autumn, when the leaves, though one breath would make them fall, still glow against the sky in golden glory. The Past does not change or strive; like Duncan, after life's fitful fever it sleeps well; what was eager and grasping, what was petty and transitory, has faded away, the things that were beautiful and eternal shine out in it like stars in the night. Its beauty, to a soul not worthy of it, is unendurable; but to a soul which has conquered Fate it is the key of religion.

The life of man, viewed outwardly, is but a small thing in comparison with the forces of Nature. The slave is doomed to worship Time and Fate and Death, because

they are greater than anything he finds in himself, and because all his thoughts are of things which they devour. But, great as they are, to think of them greatly, to feel their passionless splendor, is greater still. And such thought makes us free men; we no longer bow before the inevitable in Oriental subjection, but we absorb it, and make it a part of ourselves. To abandon the struggle for private happiness, to expel all eagerness of temporary desire, to burn with passion for eternal things—this is emancipation, and this is the free man's worship. And this liberation is effected by a contemplation of Fate; for Fate itself is subdued by the mind which leaves nothing to be purged by the purifying fire of Time.

United with his fellow-men by the strongest of all ties, the tie of common doom, the free man finds that a new vision is with him always, shedding over every daily task the light of love. The life of man is a long march through the night, surrounded by invisible foes, tortured by weariness and pain, towards a goal that few can hope to reach, and where none may tarry long. One by one, as they march, our comrades vanish from our sight, seized by the silent orders of omnipotent Death. Very brief is the time in which we can help them, in which their happiness or misery is decided. Be it ours to shed sunshine on their path, to lighten their sorrows by the balm of sympathy, to give them the pure joy of a never-tiring affection, to strengthen failing courage, to instil faith in hours of despair. Let us not weigh in grudging scales their merits and demerits, but let us think only of their need—of the sorrows, the difficulties, perhaps the blindnesses, that make the misery of their lives; let us remember that they are fellow-sufferers in the same darkness, actors in the same tragedy with ourselves. And so, when their day is over, when their good and their evil have become eternal by the immortality of the past, be it ours to feel that, where

they suffered, where they failed, no deed of ours was the cause; but wherever a spark of the divine fire kindled in their hearts, we were ready with encouragement, with sympathy, with brave words in which high courage glowed.

Brief and powerless is man's life; on him and all his race the slow sure doom falls pitiless and dark. Blind to good and evil, reckless of destruction, omnipotent matter rolls on its relentless way; for Man, condemned to-day to lose his dearest, to-morrow himself to pass through the gate of darkness, it remains only to cherish, ere yet the blow falls, the lofty thoughts that ennoble his little day; disdaining the coward terrors of the slave of Fate, to worship at the shrine that his own hands have built; undismayed by the empire of chance, to preserve a mind free from the wanton tyranny that rules his outward life; proudly defiant of the irresistible forces that tolerate, for a moment, his knowledge and his condemnation, to sustain alone, a weary but unyielding Atlas, the world that his own ideals have fashioned despite the trampling march of unconscious power.

3. The Oneness of God and Man

Professor Royce in contrast with agnostic relativism regards human interests as also interests of a Supreme Mind: [3]

There is a sense in which man is a product of Nature, and in which his life is but one incident in a vast process of Evolution,—a process whose inner meaning in great part escapes us. We have tried to see the extent to which just this is true. There is also a sense in which man's life as a Self appears to be a mere series of relatively

[3] Royce, *The World and the Individual*, Vol. II, pp. 415–425 (The Macmillan Company, 1904); used by permission of the publishers and Mrs. Royce.

Josiah Royce (1855–1916) was an American philosopher and educator, member of the faculty of Harvard from 1882 to 1916; the leading American exponent of Absolute Idealism.

accidental experiences, and of shifting social contrast-effects. We have attempted to show how far this also is the case. There is a philosophical truth in saying, as tradition and common sense long ago said, that man is a prey of fortune,—that his life is a shadow, that all his essence seems insubstantial, transient, and uncertain, and that, so far as you find law governing his life, it appears to the external observer to be a merely natural law, indifferent to the meanings and ideals that man himself most prizes. And to such truth also we have endeavored to be just. But when we were led to emphasize all these limitations of human nature, our interpretation of them was from the outset determined by the inevitable consequences of our general theory of Being. None of these aspects of man's existence could appear to us startling or strange, or even disappointing, because we had long since learned in what sense, and in what sense only, these very facts could possess any Being whatever. For in thinking of this world, where his natural place in the temporal order is so significant, man finds that the very link which binds the whole universe to this instant's knowledge is a link that predetermines what meaning the whole must itself possess, and consequently what meaning man's life, despite its apparent pettiness, must illustrate.

To the individual man we have accordingly said: Conceive yourself, in the light of your science, as this seeming plaything of natural destiny. Know your frame. Remember not only that you are dust, in the ancient sense of that word, but also that you are in your inner life, in the way that psychological analysis has now rendered familiar,—an insubstantial series of psychical conditions, physically and socially determined, precisely in so far as such determination is possible—a being whose nature has only such permanence as may prove to be involved in the permanent meaning of those fleeting conditions them-

selves, in case they indeed may possess any such meaning. View yourself as an incident, or at best an episode, in the world-embracing process of evolution. And then, when you have done all this, ask afresh this one question: How can I know all these things? And how can all these facts themselves possess any Being? You will find that the only possible answer to your questions will take the form of asserting, in the end, that you can know all this, and that all this can be real, only by reason of an ontological relation that, when rightly viewed, is seen to link yourself, even in all your weakness, to the very life of God, and the whole universe to the meaning of every Individual. In God you possess your individuality. Your very dependence is the condition of your freedom, and of your unique significance. The one lesson of your entire course has thus been the lesson of the unity of finite and of infinite, of temporal dependence, and of eternal significance, of the World and all its Individuals, of the One and the Many, of God and Man. Not only in spite, then, of our finite bondage, but because of what it means and implies, we are full of the presence and freedom of God.

But now, emphasizing the especially human aspect of our ontology, and the especially ethical significance of our theoretical results, we must expound a little more fully some of these our characteristic theses. And the particular further task of this closing lecture must be to bring together the various threads of our argument, in so far as they bear upon the doctrine of the individual Self, and of the more practical aspects of this its union with God. We have laid our basis. Let us indicate some of the consequences of our theory.

II

And next, as to our whole definition of the nature of the Divine Life. If our foregoing argument has been

sound, our Idealism especially undertakes to give a theory of the general place and of the significance of Personality in the Universe. Personality, to our view, is an essentially ethical category. A Person is a conscious being, whose life, temporally viewed, seeks its completion through deeds, while the same life, eternally viewed, consciously attains its perfection by means of the present knowledge of the whole of its temporal strivings. Now from our point of view, God is a Person. Temporally viewed, his life is that of the entire realm of consciousness in so far as, in its temporal efforts towards perfection, this consciousness of the universe passes from instant to instant of the temporal order, from act to act, from experience to experience, from stage to stage. Eternally viewed, however, God's life is the infinite whole that includes this endless temporal process, and that consciously surveys it as one life, God's own life. God is thus a Person, because, for our view, he is self-conscious, and because the Self of which he is conscious is a Self whose eternal perfection is attained through the totality of these ethically significant temporal strivings, these processes of evolution, these linked activities of finite Selves. We have long since ceased, indeed, to suppose that this theory means to view God's perfection, or his self-consciousness as the temporal result of any process of evolution, or as an event occurring at the end of time, or at the end of any one process, however extended, that occurs in time. The melody does not come into existence contemporaneously with its own last note. Nor does the symphony come into full existence only when its last chord sounds. On the contrary, the melody is the whole, whereof the notes are but abstracted fragments; the symphony is the totality, to which the last chord contributes no more than does the first bar. And precisely so it is, as we have seen, with the relation between the temporal and the eternal order. God in his

totality as the Absolute Being is conscious, not *in* time, but *of* time, and of all that infinite time contains. In time there follow, in their sequence, the chords of his endless symphony. For him is this whole symphony of life at once. Moreover there is indeed, for our doctrine, no temporal conclusion of the world's successive processes, —no one temporal goal of evolution,—no single temporal event to which the whole creation moves. For as, even in the finite symphony, every chord restlessly strives after a musical perfection that in itself it only hints, and that it does not yet finally contain, but as nevertheless this very perfection is in the whole symphony itself, viewed as a whole,—so, in the universe, every temporal instant contains a seeking after God's perfection. Yet never, at any instant of time, is this perfection attained. It is present only to the consciousness that views the infinite totality of this very seeking.

Such has been our doctrine concerning the divine life, when taken in its character as the life of the Absolute. That a conception of an endless temporal process which nevertheless constitutes one whole, present to one consciousness, is a possible conception, and that this conception is free from the self-contradictions which have usually been ascribed to the idea of the Infinite,—all this I have endeavored to show at length. But in consequence of this endlessness which I ascribe to the temporal order, and in consequence of the fact that no last event, no final occurrence in the sequence of the world's life, is to my mind possible, and in consequence of the wholeness of meaning which I nevertheless attribute to the divine consciousness itself, I am led to add here a word as to the general significance of historical progress, and of the evolutionary processes of the universe,—a word that will prove necessary for the purposes of this our concluding lecture.

At every instant, in the temporal order, God's will is in process of expressing itself. Now since this is true of every instant of time, it follows that every stage of the world-process, viewed as God views it, stands in an immediate relation to God's whole purpose. Hence there is, indeed, always progress in the universe in so far as at any instant some specific finite end is nearing or is winning its temporal attainment. Yet those are wrong who lay such stress upon the conception of progress as to assert that, in order for the world to attain a divine meaning at all, it is necessary to suppose whatever comes later in time to be in all respects better, or to be in every way nearer to God's perfection, than is what comes earlier in time. To make this assertion is to declare that in the divine order of the universe there is a Law of Universal Progress in time, so that all temporal things grow, by God's will, in all respects better as the world goes on. But our view does not make this assertion. Unquestionably, in the temporal order, if this is indeed, as we have asserted, a Moral Order, there is always in some respects Progress, because there is always a seeking of some new form and partial expression of Being, and a passing on towards such new forms and expressions. Moreover, as we have seen, there are new Ethical Individuals originating in time, and thenceforth adding their significance to the world's process. But if the temporal world thus always contains progress, it none the less obviously always involves, for any temporally limited conscious view, decay. Temporal progress, then, is only one aspect of the temporal order. For, as we pass on into our own future, we lose closer conscious touch with our own past. The growth of the man involves the death of his own childhood, with its special suggestions of divine beauty. The maturity of age means the loss of youth. For us mortals, every new temporal possession includes the irrevocable loss of former

conscious possessions. Now this same tendency, as we have earlier seen, seems to hold true of all the irreversible process of universal Nature. For in Nature, too, nothing recurs. The broken china will not mend. The withered flowers bloom no more. The sun parts forever with its heat. Tidal friction irrevocably retards the revolution of the earth. And all these things, while they include the very conditions of progress, also involve decay.

In brief, it is, with the occurrences of the successive movements of time, or with the stages of life, precisely as it is with whatever else in the universe you learn to conceive as an individual fact. One finite individual, taken as such, never possesses the precise and unique perfections of its fellow, *i. e.*, of any other individual. Hence whenever you have to pass, in your finite experience, from a partial view of one individual fact to a similar view of another individual fact, you lose something as well as gain something; and of this truth you become more clearly aware the nearer you come to an insight into the true natures of the objects concerned. Nothing can really be spared from the whole, *i. e.*, from the universe. Hence every transition, such as we make in our finite experience, is a loss as well as a gain. No progress therefore is mere progress. Every growth is also a decay. Every attainment of temporal good is also the suffering of a temporal ill. And just that is what every mother observes when she learns to mourn because her children win the very maturity that she has all the while longed and striven to help them win. Just such is our experience too when we listen to music. In hearing the Heroic Symphony of Beethoven, how easily, during the Funeral March,—yes, even during the triumphant glories of the closing movement,—how easily, I say, may not the hearer wish himself back again in the midst of the striving life that the opening theme of the first movement introduces. Finite

gain is also finite loss. This is the axiom of the temporal world, in so far as you view its events under the conditions of any finite span of conscious survey. Hence mere progress,—Progress without any admixture of temporal decay and loss,—is not the law of the sequent events of the world.

On the other hand, in so far as any finite consciousness seeks, in its own future, a temporal goal that it has not yet won, and then approaches that goal,—for just this consciousness, in view of just this goal, there is indeed Progress. Now from our point of view, the general rationality of the world's temporal processes assures us that at all times there is, on the whole, and despite countless hindrances and evils, precisely this sort of attainment of significant goals occurring in the world. Hence Progress is, in one sense, but by no means in every sense, a fact always present in time. It is always present in the sense that at every moment of time some new and significant goal, that never before was attained, is approached by the finite agents whose will is just now in question. They seek new good, and, despite all evil, they always tend to win good, and always have some measure of success in striving intelligently for such good. On the other hand, Progress is not universal, if by universal Progress you mean a condition in which the temporal should be in all essential respects better at any one moment than it ever was before. On the contrary, you can always say that in *some* respects the finite universe of any one temporal instant is worse than it ever was before, since it has irrevocably lost all those perfections that the past contained, and that now are sought for in vain, while with every new temporal instant of the world more and still more of such perfections become lost beyond recall in the past. For instance, Progress for mankind here on earth is not universal; for, remember, we have lost, beyond earthly human

recall, the Greeks, and the constructive genius of a Shakespeare or of a Goethe; and these are, indeed, for us mortals, simply irreparable losses. Yet, on the other hand, Progress in a sense is universal for mankind; for daily civilization, retaining some of its ancient treasures, adds new ones; and, aiming at goods never yet won, attains them.

The one most essentially progressive aspect of the temporal order is that which is due to the appearance of new Ethical Individuals. For their perfections are additions to the world's stock of ideal goods; and they, as we shall see, do not pass away. Yet it has to be remembered that a new Ethical Individual, considered in any one temporal stage of his life, is not *merely* an added perfection, that the world never possessed before. He is also an added problem,—a new source of conflict and of painful endeavor. Only from the eternal point of view is he finally viewed as a perfection. In time he may appear, for a long while, as a new evil.

Now, it is worth while to recall such considerations, simple as they are, whenever we are concerned to conceive the relation of Progress, or of that still more generally conceived realm of processes called Evolution, to the divine life. As a fact, all ages are present at once as elements in an infinite significant process to the divine insight. Every age therefore has, as the historian Ranke once said of the ages of human history, its "unmittelbare Beziehung auf die Gottheit." All things always work together for good from the divine point of view; and whoever can make this divine point of view in any sense his own, just in so far sees that they do so, despite the inevitable losses and sorrows of the temporal order.

CHAPTER XXVIII

THE PHILOSOPHY OF HISTORY

1. Hebrew Prophetic Interpretation of History

Typical passages from among the many in the Old Testament representing the theocratic view of history are the following:[1]

"Are ye not as the Cushites to me,
O Israel?" is the oracle of Jehovah.
"Did I not bring up Israel out of the land of Egypt,
And the Philistines from Caphtor, and Aran from Kir?
Behold the eyes of the Lord Jehovah are upon the sinful kingdom,
And I will destroy it from the face of the earth."

Who[2] hath measured in the hollow of his hand the waters,
And ruled off the heavens with a span,
Or enclosed the dust of the earth in a measure,
Or weighed the mountains in scales,
And the hills in a balance?

Who hath determined the spirit of Jehovah,
And as his counselor advised him?

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[1] Kent, C. F., *The Sermons, Epistles and Apocalypses of Israel's Prophets*, p. 81: Amos ix, 7, 8; copyright, Charles Scribner's Sons, 1910; reprinted by permission of the publishers.

[2] *Ibid.*, pp. 337–339: Isaiah xl, 12–31; xli, 6, 7.

With whom hath he consulted for enlightenment,
And to be instructed in the right,
And to be shown the way of discernment?

Lo the nations! as a drop from a bucket,
And as dust on a balance are they reckoned.
Lo the isles! as a mote he uplifteth,
And Lebanon is not enough for fuel,
And its wild beasts for a burnt offering.
All the nations are as nothing before him,
They are reckoned by him as void and nothingness.

To whom then will ye liken God,
And what likeness place beside him?
An image! a craftsman cast it,
And a smelter overlays it with gold.
41:6 Each one helps the other,
And says to his fellow, Be courageous!
7 So the craftsman encourages the smelter,
The smoother with the hammer him who smites the anvil,
Saying of the plating, It is good;
And he fastens it securely with nails.
40:20 He who is too poor to do this
Chooses a tree that is not decayed,
Seeks for himself a skilled craftsman,
To set up an image that shall not totter.

Do ye not know? Do ye not hear?
Hath it not been told you from the beginning?
Have ye not been aware from the founding of the earth?
It is he who is enthroned above the vault of earth,
And its inhabitants are as locusts,
Who stretcheth out the heavens as a thin veil,
And spreadeth them out like a habitable tent.

It is he who bringeth princes to naught,
The rulers of the earth he maketh as waste.
Scarcely have they been planted, scarcely have
they been sown,
Scarcely hath the stock taken root in the earth,
But he bloweth upon them and they wither,
And a whirlwind carries them away like stubble.

To whom then will ye liken me,
That I should equal him? saith the Holy One.
Lift up your eyes on high and see:
Who hath created these?
He who bringeth forth their host by number,
And calleth each by his name;
Of the many mighty and strong,
Not one is missing.

Why sayest thou, O Jacob, and speakest, O Israel:
My way is hid from Jehovah
And my right is unnoticed by my God?
Hast thou not known? Hast thou not heard?
An everlasting God is Jehovah.
The creator of the ends of the earth.
He fainteth not, neither is he weary,
His wisdom is unfathomable,
He giveth vigor to the fainting,
And upon the powerless he lavisheth strength.
Young men may faint and grow weary,
And the strongest youths may stumble,
But they who trust in Jehovah renew their vigor,
They mount on pinions like eagles,
They run but are never weary,
They walk but never faint.

2. Medieval Philosophy of History

Saint Augustine's view of the contrast between the city of this world and the City of God is suggested in the following: [3]

Of the two contrary courses taken by the human race from the beginning.

Of the place and felicity of the local Paradise, together with man's life and fall therein, there are many opinions, many assertions, and many books, as several men thought, spoke and wrote. What we held hereof, or could gather out of Holy Scriptures, correspondent unto their truth and authority, we related in some of the foregoing books: if they be farther looked into, they will give birth to more questions, and longer disputations than we now have room for: our time is not so large as to permit us to argue scrupulously upon every question that may be asked by busy heads that are more curious of inquiry than capable of understanding. I think we have sufficiently discussed the doubts concerning the beginning of the world, the soul, and mankind: which last is divided into two sorts: such as live according to man, and such as live according to God. These, we mystically call, "two cities" or societies, the one predestined to reign eternally with God: the other condemned to perpetual torment with the devil. This is their end: of which hereafter. Now seeing we have said sufficient concerning their original, both in the angels whose number we know not, and in the two first parents of mankind: I think it fit to pass on to their career, from man's first offspring until he cease to beget any more. Between which two points all the time included, wherein the livers succeed the diers, is the career of these two

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[3] Augustine, *City of God*, Book XIII, 1, translated by John Healey (Temple edition); reprinted by permission of J. M. Dent & Co.

For note on Augustine, see p. 202.

"cities." Cain therefore was the first begotten of those two that were mankind's parents: and he belongs to the city of man: Abel was the later, and he belongs to the city of God. For as we see that in that one man (as the apostle says) that which is spiritual was not first, but that which is natural first, and then the spiritual (whereupon all that comes from Adam's corrupted nature must needs be evil and carnal at first, and then if he be regenerate by Christ, becomes good and spiritual afterward): so in the first propagation of man, and course of the "two cities" of which we dispute, the carnal citizen was born first, and pilgrim on earth, or heavenly citizen, afterwards, being by grace predestinated, and by grace elected, by grace a pilgrim upon earth, and by grace a citizen in heaven. For as for his birth, it was out of the same corrupted mass that was condemned from the beginning: but God like a potter (for this simile the apostle himself uses) out of the same lump, made "one vessel to honor and another to reproach." The vessel of reproach was made first, and the vessel of honor afterwards. For in that one man, as I said, first was reprobation, whence we must needs begin (and wherein we need not remain), and afterwards, goodness, to which we come by profiting, and coming thither, and therein making our abode. Whereupon it follows that no one can be good that has not first been evil, though all that be evil become not good: but the sooner a man betters himself the quicker does this name follow him, abolishing the memory of the other. Therefore it is recorded of Cain that he built a city, but Abel was a pilgrim, and built none. For the city of the saints is above, though it have citizens here upon earth, wherein it lives as a pilgrim until the time of the kingdom come, and then it gathers all the citizens together in the resurrection of the body and gives them a kingdom to reign in with their King, for ever and ever.

Of the origin of two states.[4]

Thus the two cities are described to be seated: the one in worldly possession, the other in heavenly hope, both coming out at the common gate of mortality, which was opened in Adam, out of whose condemned race, as out of a putrefied lump, God elected some vessels of mercy and some of wrath: giving due pains unto the one, and undue grace unto the other, that the citizens of God upon earth may take this lesson from those vessels of wrath, never to rely on their own election but hope to call upon the name of the Lord: because the natural will which God made (but yet here the Unchangeable made it not changeless) may both decline from Him that is good, and from all good, to do evil, and that by freedom of will; and from evil also to do good, but that not without God's assistance.

The grounds of the concord and discord between the cities of heaven and earth.[5]

But they that live not according to faith, angle for all their peace in the sea of temporal profits: whereas the righteous live in full expectation of the glories to come, using the occurrences of this world, but as pilgrims, not to abandon their course towards God for mortal respects, but thereby to assist the infirmity of the corruptible flesh, and make it more able to encounter with toil and trouble. Wherefore the necessaries of this life are common, both to the faithful and the infidel, and to both their families: but the ends of their two usages thereof are far different.

The faithless, "worldly city" aims at earthly peace, and settles the self therein, only to have an uniformity of the citizens' wills in matters only pertaining to morality. And the "Heavenly City," or rather that part thereof, which is as yet a pilgrim on earth and lives by faith, uses this peace also: as it should, it leaves this mortal life,

[4] *Ibid.*, Chap. VI.
[5] *Ibid.*, Book XV, 17.

wherein such a peace is requisite, and therefore lives (while it is here on earth) as if it were in captivity, and having received the promise of redemption, and divers spiritual gifts as seals thereof, it willingly obeys such laws of the "temporal city" as order the things pertaining to the sustenance of this mortal life, to the end that both the cities might observe a peace in such things as are pertinent hereunto. But because that the "earthly city" has some members whom the Holy Scriptures utterly disallow, and who standing either too well affected to the devils, or being deluded by them, believed that each thing had a peculiar deity over it, and belonged to the charge of a several god: as the body to one, the soul to another, and in the body itself the head to one, the neck to another, and so of every member: as likewise of the soul, one had the wit, another the learning, a third the wrath, a fourth the desire: as also in other necessaries or accidents belonging to man's life, the cattle, the corn, the wine, the oil, the woods, the monies, the navigation, the wars, the marriages, the generations, each being a several charge unto a particular power, whereas the citizens of the "heavenly State" acknowledged but one only God, to whom that worship, which is called λατρεία was peculiarly and solely due; hence came it that the "two hierarchies" could not be combined in one religion, but must needs dissent herein, so that the good part was fain to bear the pride and persecution of the bad, had not their own multitude sometimes, and the providence of God continually stood for their protection.

This "celestial society" while it is here on earth, increases itself out of all languages, never respecting the temporal laws that are made against so good and religious a practice: yet not breaking, but observing their diversity in divers nations, all which do tend unto the preservation of earthly peace, if they oppose not the adoration of one

only God. So that you see, the "Heavenly City" observes and respects this temporal peace here on earth, and the coherence of men's wills in honest morality, as far as it may with a safe conscience; yea, and so far desires it, making use of it for the attainment of the peace eternal: which is so truly worthy of that name, as that the orderly and uniform combination of men in the fruition of God, and of one another in God, is to be accounted the reasonable creature's only peace, which being once attained, mortality is banished, and life then is the true life indeed, nor is the carnal body any more an encumbrance to the soul, by corruptibility, but is now become spiritual, perfected and entirely subject unto the sovereignty of the will.

This peace is that unto which the pilgrim in faith refers the other which he has here in his pilgrimage, and then lives he according to faith, when all that he does for the obtaining hereof is by himself referred unto God, and his neighbor withal, because being a citizen, he must not be all for himself, but sociable in his life and actions.

Why the punishment of the condemned is here disputed of before the happiness of the saints.[6]

Seeing that by the assistance of our Lord and Saviour Jesus Christ, "the Judge of the quick and the dead," we have brought both the cities (the one whereof is God's and the other the devil's), unto their intended consummation, we are now to proceed (by the help of God) in this book, with the declaration of the punishment due unto the devil and all his confederacy. And this I choose to do before I handle the glories of the blessed, because both these and the wicked are to undergo their sentences in body and soul, and it may seem more incredible for an earthly body to endure undissolved in eternal pains, than without all

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[6] *Ibid.*, Book XVII, 1.

pain, in everlasting happiness. So that when I have shown the possibility of the first, it may be a great motive unto the confirmation of the latter. Nor does this method want a precedent from the Scriptures themselves, which sometimes relate the beatitudes of the saints foremost, as here, "They that have done good, unto the resurrection of life, but they that have done evil, unto the resurrection of condemnation," and sometimes afterward, as here, "The Son of Man shall send forth his angels, and they shall gather out of His kingdom all things that offend, and them which do iniquity, and shall cast them into a furnace of fire; there shall be wailing and gnashing of teeth: then shall the just shine like the sun, in the kingdom of the Father," and again, "And these shall go into everlasting pain; but the righteous into life eternal." Besides, he that will look into the prophets shall find this order often observed: it were too much for me to recite all: my reason why I observe it here, I have set down already.

Whether an earthly body may possibly be incorruptible by fire.[7]

What then shall I say unto the unbelievers, to prove that a body carnal and living, may endure undissolved both against death and the force of eternal fire? They will not allow us to ascribe this unto the power of God, but urge us to produce it to them by some example. If we shall answer them that there are some creatures that are indeed corruptible, because mortal, and yet do live untouched in the midst of the fire: and likewise, that there are a kind of worms that live without being hurt in the fervent springs of the hoth baths, whose heat sometimes is such as none can endure; and yet those worms do so love to live in it, that they cannot live without it; this, either

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[7] *Ibid.*, Chap. II.

they will not believe unless they see it, or if they do see it, or hear it affirmed by sufficient authority, then they cavil at it as an insufficient proof for the proposed question; for that these creatures are not eternal howsoever, and living thus in this heat, nature has made it the means of their growth and nutriment, not of their torment. As though it were not more incredible that fire should nourish anything rather than not consume it. It is strange for anything to be tormented by the fire, and yet to live; but it is stranger to live in the fire and not to be tormented. If then this latter be credible, why is not the first so also?

3. Reason in History

Hegel's interpretation of the movement of history as an expression of Absolute Reason has been historically important both as a part of absolute idealistic philosophy and for the contribution it made to the interest in the study of history: [8]

The inquiry into the *essential destiny* of Reason—as far as it is considered in reference to the World—is identical with the question, *what is the ultimate design of the world?* And the expression implies that that design is destined to be realized. Two points of consideration suggest themselves: first, the *import* of this design—its abstract definition; and secondly, its *realization.*

It must be observed at the outset, that the phenomenon we investigate—Universal History—belongs to the realm of *Spirit.* The term "World," includes both physical and psychical Nature. Physical Nature also plays its part in the World's History, and attention will have to be paid to the fundamental natural relations thus involved. But

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[8] Hegel, *The Philosophy of History,* translated by J. Sibree from the Introduction, pp. 17–23, 39–44 (edition of 1900); used by permission of J. B. Lippincott and Wm. Blackwood & Sons.

For note on Hegel, see p. 14.

Spirit, and the course of its development, is our substantial object. Our task does not require us to contemplate Nature as a Rational System in itself—though in its own proper domain it proves itself such—but simply in its relations to *Spirit*. On the stage on which we are observing it—Universal History—Spirit displays itself in its most concrete reality. Notwithstanding this (or rather for the very purpose of comprehending the *general* principles which this, its form of *concrete reality,* embodies) we must premise some abstract characteristics of the *nature of Spirit*. Such an explanation, however, cannot be given here under any other form than that of bare assertion. The present is not the occasion for unfolding the idea of Spirit speculatively; for whatever has a place in an Introduction, must, as already observed, be taken as simply historical; something assumed as having been explained and proved elsewhere; or whose demonstration awaits the sequel of the Science of History itself.

We have therefore to mention here:

(1) The abstract characteristics of the nature of Spirit.

(2) What means Spirit uses in order to realize its Idea.

(3) Lastly, we must consider the shape which the perfect embodiment of Spirit assumes—the State.

(1) The nature of Spirit may be understood by a glance at its direct opposite—*Matter*. As the essence of Matter is Gravity, so, on the other hand, we may affirm that the substance, the essence of Spirit is Freedom. All will readily assent to the doctrine that Spirit, among other properties, is also endowed with Freedom; but philosophy teaches that all the qualities of Spirit exist only through Freedom; that all are but means for attaining freedom; that all seek and produce this and this alone. It is a result of speculative Philosophy, that Freedom is the sole truth of Spirit. Matter possesses gravity in virtue of its tendency toward a central point. It is essentially com-

posite; consisting of parts that exclude each other. It seeks its Unity; and therefore exhibits itself as self-destructive, as verging toward its opposite [an indivisible point]. If it could attain this, it would be Matter no longer, it would have perished. It strives after the realization of its Idea; for in Unity it exists *ideally*. Spirit, on the contrary, may be defined as that which has its center in itself. It has not a unity outside itself, but has already found it; it exists *in* and *with itself*. Matter has its essence out of itself; Spirit is *self-contained existence*. Now this is Freedom, exactly. For if I am dependent, my being is referred to something else which I am not; I cannot exist independently of something external. I am free, on the contrary, when my existence depends upon myself. This self-contained existence of Spirit is none other than self-consciousness—consciousness of one's own being. Two things must be distinguished in consciousness; first, the fact *that I know;* secondly, *what I know*. In *self* consciousness these are merged in one; for Spirit *knows itself*. It involves an appreciation of its own nature, as also an energy enabling it to realize itself; to make itself *actually* that which it is *potentially*. According to this abstract definition it may be said of Universal History, that it is the exhibition of Spirit in the process of working out the knowledge of that which it is potentially. And as the germ bears in itself the whole nature of the tree, and the taste and form of its fruits, so do the first traces of Spirit virtually contain the whole of that History. The Orientals have not attained the knowledge that Spirit—Man *as such* —is free; and because they do not know this, they are not free. They only know that *one is free*. But on this very account, the freedom of that one is only caprice; ferocity —brutal recklessness of passion, or a mildness and tameness of the desires, which is itself only an accident of Nature—mere caprice like the former.—That *one* is there-

fore only a despot; not a *free man.* The consciousness of Freedom first arose among the Greeks, and therefore they were free; but they, and the Romans likewise, knew only that *some* are free—not man as such. Even Plato and Aristotle did not know this. The Greeks, therefore, had slaves; and their whole life and the maintenance of their splendid liberty, was implicated with the institution of slavery: a fact, moreover, which made that liberty on the one hand only an accidental, transient and limited growth; on the other hand, constituted it a rigorous thraldom of our common nature—of the Human. The German nations, under the influence of Christianity, were the first to attain the consciousness, that man, as man, is free: that it is the *freedom* of Spirit which constitutes its essence. This consciousness arose first in religion, the inmost region of Spirit; but to introduce the principle into the various relations of the actual world, involves a more extensive problem than its simple implantation; a problem whose solution and application require a severe and lengthened process of culture. In proof of this, we may note that slavery did not cease immediately on the reception of Christianity. Still less did liberty predominate in States; or Governments and Constitutions adopt a rational organization, or recognize freedom as their basis. That application of the principle to political relations; the thorough molding and inter-penetration of the constitution of society by it, is a process identical with history itself. I have already directed attention to the distinction here involved, between a principle as such, and its *application; i. e.,* its introduction and carrying out in the actual phenomena of Spirit and Life. This is a point of fundamental importance in our science, and one which must be constantly respected as essential. And in the same way as this distinction has attracted attention in view of the *Christian* principle of self-consciousness—Freedom; it also

shows itself as an essential one, in view of the principle of Freedom *generally*. The History of the world is none other than the progress of the consciousness of Freedom; a progress whose development according to the necessity of its nature it is our business to investigate.

The general statement given above, of the various grades in the consciousness of Freedom—and which we applied in the first instance to the fact that the Eastern nations knew only that one is free; the Greek and the Roman world only that some are free; while we know that all men absolutely (man as man) are free—supplies us with the natural division of Universal History, and suggests the mode of its discussion. This is remarked, however, only incidentally and anticipatively; some other ideas must be first explained. The destiny of the spiritual World, and —since this is the *substantial World*, while the physical remains subordinate to it, or, in the language of speculation, has no truth *as against* the spiritual—the *final cause of the World at large*, we allege to be the consciousness of its own freedom on the part of Spirit, and *ipso facto*, the *reality* of that freedom. But that this term "Freedom," without further qualification, is an indefinite, and incalculable ambiguous term; and that while that which it represents is the *ne plus ultra* of attainment, it is liable to an infinity of misunderstandings, confusions and errors, and to become the occasion for all imaginable excesses—has never been more clearly known and felt than in modern times. Yet, for the present, we must content ourselves with the term itself without further definition. Attention was also directed to the importance of the infinite difference between a principle in the abstract, and its realization in the concrete. In the process before us, the essential nature of freedom—which involves in it absolute necessity—is to be displayed as coming to a consciousness of itself (for it is in its very nature self-consci-

ousness) and thereby realizing its existence. Itself is its own object of attainment, and the sole aim of Spirit. This result it is, at which the process of the World's History has been continually aiming; and to which the sacrifices that have ever and anon been laid on the vast altar of the earth, through the long lapse of ages, have been offered. This is the only aim that sees itself realized and fulfilled; the only pole of repose amid the ceaseless change of events and conditions, and the sole efficient principle that pervades them. This final aim is God's purpose with the world; but God is the Absolutely perfect Being, and can, therefore, will nothing other than himself—his own Will. The Nature of His Will—that is, His Nature itself—is what we here call the Idea of Freedom; translating the language of Religion into that of Thought. The question, then, which we may next put, is: What means does this principle of Freedom use for its realization? This is the second point we have to consider.

(2) The question of the *means* by which Freedom develops itself to a World, conducts us to the phenomenon of History itself. Although Freedom is, primarily, an undeveloped idea, the means it uses are external and phenomenal; presenting themselves in History to our sensuous vision. The first glance at History convinces us that the actions of men proceed from their needs, their passions, their characters and talents; and impresses us with the belief that such needs, passions and interests are the sole springs of action—the efficient agents in this scene of activity. Among these may, perhaps, be found aims of a liberal or universal kind—benevolence it may be or noble patriotism; but such virtues and general views are but insignificant as compared with the World and its doings. We may perhaps see the Ideal of Reason actualized in those who adopt such aims, and within the sphere of their influence; but they bear only a trifling proportion to the

mass of the human race; and the extent of that influence is limited accordingly. Passions, private aims, and the satisfaction of selfish desires, are, on the other hand, most effective springs of action. Their power lies in the fact that they respect none of the limitations which justice and morality would impose on them; and that these natural impulses have a more direct influence over man than the artificial and tedious discipline that tends to order and self-restraint, law and morality. When we look at this display of passions, and the consequences of their violence; the Unreason which is associated not only with them, but even (rather we might say *especially*) with *good* designs and righteous aims; when we see the evil, the vice, the ruin that has befallen the most flourishing kingdoms which the mind of man ever created; we can scarce avoid being filled with sorrow at this universal taint of corruption; and, since this decay is not the work of mere Nature, but of the Human Will—a moral imbitterment—a revolt of the Good Spirit (if it have a place within us) may well be the result of our reflections. Without rhetorical exaggeration, a simply truthful combination of the miseries that have overwhelmed the noblest of nations and policies, and the finest exemplars of private virtue—forms a picture of most fearful aspect, and excites emotions of the profoundest and most hopelessss sadness, counterbalanced by no consolatory result. We endure in beholding it a mental torture, allowing no defence or escape but the consideration that what has happened could not be otherwise; that it is a fatality which no intervention could alter. And at last we draw back from the intolerable disgust with which these sorrowful reflections threaten us into the more agreeable environment of our individual life—the Present formed by our private aims and interests. In short we retreat into the selfishness that stands on the quiet shore, and thence enjoys in safety the distant

spectacle of "wrecks confusedly hurled." But even regarding History as the slaughter-bench at which the happiness of peoples, the wisdom of States, and the virtue of individuals have been victimized—the question involuntarily arises—to what principle, to what final aim these enormous sacrifices have been offered. From this point the investigation usually proceeds to that which we have made the general commencement of our inquiry. Starting from this we pointed out those phenomena which made up a picture so suggestive of gloomy emotions and thoughtful reflections—as *the very field* which we, for our part, regard as exhibiting only the means for realizing what we assert to be the essential destiny—the absolute aim—or, which comes to the same thing—the true *result* of the World's History. We have all along purposely eschewed "moral reflections" as a method of rising from the scene of historical specialties to the general principles which they embody. Besides, it is not the interest of such sentimentalities really to rise above those depressing emotions; and to solve the enigmas of Providence which the considerations that occasioned them present. It is essential to their character to find a gloomy satisfaction in the empty and fruitless sublimities of that negative result. We return then to the point of view which we have adopted; observing that the successive steps of the analysis to which it will lead us, will also evolve the conditions requisite for answering the inquiries suggested by the panorama of sin and suffering that history unfolds. . . .

(3) The third point to be analyzed is, therefore—what is the object to be realized by these means; *i. e.*, what is the form it assumes in the realm of reality. We have spoken of *means;* but in the carrying out of a subjective, limited aim, we have also to take into consideration the element of a *material,* either already present or which has to be procured. Thus the question would arise:

What is the material in which the Ideal of Reason is wrought out? The primary answer would be—Personality itself—human desires—Subjectivity generally. In human knowledge and volition, as its material element, Reason attains positive existence. We have considered subjective volition where it has an object which is the truth and essence of a reality; viz., where it constitutes a great world-historical passion. As a subjective will, occupied with limited passions, it is dependent, and can gratify its desires only within the limits of this dependence. But the subjective will has also a substantial life—a reality—in which it moves in the region of *essential* being, and has the essential itself as the object of its existence. This essential being is the union of the *subjective* with the *rational* Will: it is the moral Whole, the *State,* which is that form of reality in which the individual has and enjoys his freedom; but on the condition of his recognizing, believing in and willing that which is common to the Whole. And this must not be understood as if the subjective will of the social unit attained its gratification and enjoyment through that common Will; as if this were a means provided for its benefit; as if the individual, in his relations to other individuals, thus limited his freedom, in order that this universal limitation—the mutual constraint of all—might secure a small space of liberty for each. Rather, we affirm, are Law, Morality, Government, and they alone, the positive reality and completion of Freedom. Freedom of a low and limited order is mere caprice, which finds its exercise in the sphere of particular and limited desires.

Subjective volition—Passion—is that which sets men in activity, that which effects "practical" realization. The Idea is the inner spring of action; the State is the actually existing, realized moral life. For it is the Unity of the universal, essential Will, with that of the individual; and

this is "Morality." The Individual living in this unity has a moral life; possesses a value that consists in this substantiality alone. Sophocles in his Antigone, says, "The divine commands are not of yesterday, nor of to-day; no, they have an infinite existence, and no one could say whence they came." The laws of morality are not accidental, but are essentially Rational. It is the very object of the State that what is essential in the practical activity of men, and in their dispositions, should be duly recognized; that it should have a manifest existence, and maintain its position. It is the absolute interest of Reason that this moral Whole should exist: and herein lies the justification and merit of heroes who have founded states —however rude these may have been. In the history of the World, only those peoples can come under our notice which form a state. For it must be understood that this latter is the realization of Freedom, *i. e.*, of the absolute final aim, and that it exists for its own sake. It must further be understood that all the worth which the human being possess—all spiritual reality, he possesses only through the State. For his spiritual reality consists in this, that his own essence—Reason—is objectively present to him, that it possesses objective immediate existence for him. Thus only is he fully conscious; thus only is he a partaker of morality—of a just and moral social and political life. For Truth is the Unity of the universal and subjective Will; and the Universal is to be found in the State, in its laws, its universal and rational arrangements. The State is the Divine Idea as it exists on Earth. We have in it, therefore, the object of History in a more definite shape than before; that in which Freedom obtains objectivity, and lives in the enjoyment of this objectivity. For Law is the objectivity of Spirit; volition in its true form. Only that will which obeys law, is free; for it obeys itself—it is independent and so free. When the State or

our country constitutes a community of existence; when the subjective will of man submits to laws—the contradiction between Liberty and Necessity vanishes. The Rational has necessary existence, as being the reality and substance of things, and we are free in recognizing it as law, and following it as the substance of our own being. The objective and the subjective will are then reconciled, and present one identical homogeneous whole. For the morality (Sittlichkeit) of the State is not of that ethical (moralische) reflective kind, in which one's own conviction bears sway; this latter is rather the peculiarity of the modern time, while the true antique morality is based on the principle of abiding by one's duty [to the state at large]. An Athenian citizen did what was required of him, as it were from instinct: but if I reflect on the object of my activity, I must have the consciousness that my will has been called into exercise. But morality is Duty—substantial Right—a "*second* nature" as it has been justly called; for the *first* nature of man is his primary merely animal existence.

The development *in extenso* of the Idea of the State belongs to the Philosophy of Jurisprudence; but it must be observed that in the theories of our time various errors are current respecting it, which pass for established truths, and have become fixed prejudices. We will mention only a few of them, giving prominence to such as have a reference to the object of our history.

The error which first meets us is the direct contradictory of our principle that the state presents the realization of Freedom; the opinion, viz., that man is free by *nature*, but that in *society*, in the State—to which nevertheless he is irresistibly impelled—he must limit his natural freedom. That man is free by Nature is quite correct in one sense; viz., that he is so according to the Idea of Humanity; but we imply thereby that he is such only in

virtue of his destiny—that he has an undeveloped power to become such; for the "Nature" of an object is exactly synonymous with its "Idea." But the view in question imports more than this. When man is spoken of as "free by Nature," the mode of his existence as well as his destiny is implied. His merely natural and primary condition is intended. In this sense a "state of Nature" is assumed in which mankind at large are in the possession of their natural rights with the unconstrained exercise and enjoyment of their freedom. This assumption is not indeed raised to the dignity of the historical fact; it would indeed be difficult, were the attempt seriously made, to point out any such condition as actually existing, or as having ever occurred. Examples of a savage state of life can be pointed out, but they are marked by brutal passions and deeds of violence; while, however rude and simple their conditions, they involve social arrangements which (to use the common phrase) *restrain* freedom. That assumption is one of those nebulous images which theory produces; an idea which it can not avoid originating, but which it fathers upon real existence, without sufficient historical justification.

What we find such a state of Nature to be in actual experience, answers exactly to the Idea of a *merely* natural condition. Freedom as the *ideal* of that which is original and natural, does not exist *as original and natural.* Rather must it be first sought out and won; and that by an incalculable medial discipline of the intellectual and moral powers. The state of Nature is, therefore, predominantly that of injustice and violence, of untamed natural impulses, of inhuman deeds and feelings. Limitation is certainly produced by Society and the State, but it is a limitation of the mere brute emotions and rude instincts; as also, in a more advanced stage of culture, of the premediated self-will of caprice and passion. This kind of

restraint is part of the instrumentality by which only the consciousness of Freedom and the desire for its attainment, in its true—that is Rational and Ideal—form can be obtained. To the Ideal of Freedom, Law and Morality are indispensably requisite; and they are in and for themselves, universal existences, objects and aims; which are discovered only by the activity of thought, separating itself from the merely sensuous, and developing itself, in opposition thereto; and which must, on the other hand, be introduced into and incorporated with the originally sensuous will, and that contrarily to its natural inclination. The perpetually recurring misapprehension of Freedom consists in regarding that term only in its *formal*, subjective sense, abstracted from its essential objects and aims; thus a constraint put upon impulse, desire, passion —pertaining to the particular individual as such—a limitation of caprice and self-will is regarded as a fettering of Freedom. We should on the contrary look upon such limitation as the indispensable proviso of emancipation. Society and the State are the very conditions in which Freedom is realized.

We must notice a second view, contravening the principle of the development of moral relations into a legal form. The *patriarchal* condition is regarded—either in reference to the entire race of man, or to some branches of it—as exclusively that condition of things, in which the legal element is combined with a due recognition of the moral and emotional part of our nature; and in which justice, as united with these, truly and really influences the intercourse of the social units. The basis of the patriarchal condition is the family relation; which develops the *primary* form of conscious morality, succeeded by that of the State as its *second* phase. The patriarchal condition is one of transition, in which the family has already advanced to the position of a race or people; where the

union, therefore, has already ceased to be simply a bond of love and confidence, and has become one of plighted service. We must first examine the ethical principle of the Family. The Family may be reckoned as virtually a single person; since its members have either mutually surrendered their individual personality (and consequently their legal position toward each other, with the rest of their particular interests and desires), as in the case of Parents; or have not yet attained such an independent personality—(the Children—who are primarily in that merely natural condition already mentioned). They live, therefore, in a unity of feeling, love, confidence, and faith in each other. And in a relation of mutual love, the one individual has the consciousness of himself in the consciousness of the other; he lives out of self; and in this mutual self-renunciation each regains the life that had been virtually transferred to the other; gains, in fact, that other's existence and his own, as involved with that other. The further interests connected with the necessities and external concerns of life, as well as the development that has to take place within their circle, *i. e.*, of the children, constitute a common object for the members of the Family. The Spirit of the Family—the Penates—form one substantial being, as much as the Spirit of a People in the State; and morality in both cases consists in a feeling, a consciousness, and a will, not limited to individual personality and interest, but embracing the common interests of the members generally. But this unity is in the case of the Family essentially one of *feeling;* not advancing beyond the limits of the merely *natural.* The piety of the Family relation should be respected in the highest degree by the State; by its means the State obtains as its members individuals who are already moral (for as mere *persons* they are not), and who in uniting to form a state bring with them that sound basis of a political edifice—the capacity

of feeling one with a Whole. But the expansion of the Family to a patriarchal unity carries us beyond the ties of blood-relationship—the simply natural elements of that basis; and outside of these limits the members of the community must enter upon the position of independent personality. A review of the patriarchal condition, *in extenso,* would lead us to give special attention to the Theocratical Constitution. The head of the patriarchal clan is also its priest. If the Family in its general relations is not yet separated from civic society and the state, the separation of religion from it has also not yet taken place; and so much the less since the piety of the hearth is itself a profoundly subjective state of feeling.

4. The Law of Development

Comte's formulation of the law of three stages has been of widespread interest, and is one of the well-known features of his positivistic philosophy: [9]

From the study of the development of human intelligence, in all directions, and through all times, the discovery arises of a great fundamental law, to which it is necessarily subject, and which has a solid foundation of proof, both in the facts of our organization and in our historical experience. The law is this:—that each of our leading conceptions,—each branch of our knowledge,—passes successively through three different theoretical conditions: the Theological, or fictitious; the Metaphysical, or abstract; and the Scientific, or positive. In other words, the human mind, by its nature, employs in its progress

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[9] Comte, Auguste, *Positive Philosophy,* translated and condensed by Harriet Martineau (1853), Vol. I, Ch. i, pp. 1–4, 12, 13.

Auguste Comte (1798–1857), French educator and philosopher, was influential in developing sociology as an independent science, and in establishing the movement called positivism in philosophy and religion. His *Course of Positive Philosophy* was first published during 1830–1842 at Paris.

three methods of philosophizing, the character of which is essentially different, and even radically opposed: viz., the theological method, the metaphysical, and the positive. Hence arise three philosophies, or general systems of conceptions on the aggregate of phenomena, each of which excludes the others. The first is the necessary point of departure of the human understanding; and the third is its fixed and definitive state. The second is merely a state of transition.

In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects,—in short, Absolute knowledge,—supposes all phenomena to be produced by the immediate action of supernatural beings.

In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is, in this stage, a mere reference of each to its proper entity.

In the final, the positive state, the mind has given over the vain search after Absolute notions, the origin and destination of the universe, and the causes of phenomena, and applied itself to the study of their laws,—that is, their invariable relations of succession and resemblance. Reasoning and observation, duly combined, are the means of this knowledge. What is now understood when we speak of an explanation of facts is simply the establishment of a connection between single phenomena and some general facts, the number of which continually diminishes with the progress of science.

The Theological system arrived at the highest perfection of which it is capable when it substituted the providential action of a single Being for the varied operations of the

numerous divinities which had been before imagined. In the same way, in the last stage of the Metaphysical system, men substitute one great entity (Nature) as the cause of all phenomena, instead of the multitude of entities at first supposed. In the same way, again, the ultimate perfection of the Positive system would be (if such perfection could be hoped for) to represent all phenomena as particular aspects of a single general fact;—such as Gravitation, for instance.

The importance of the working of this general law will be established hereafter. At present, it must suffice to point out some of the grounds of it.

There is no science which, having attained the positive stage, does not bear marks of having passed through the others. Some time since it was (whatever it might be) composed, as we can now perceive, of metaphysical abstractions; and, further back in the course of time, it took its form from theological conceptions. We shall have only too much occasion to see, as we proceed, that our most advanced sciences still bear very evident marks of the two earlier periods through which they have passed.

The progress of the individual mind is not only an illustration, but an indirect evidence of that of the general mind. The point of departure of the individual and of the race being the same, the phases of the mind of a man correspond to the epochs of the mind of the race. Now, each of us is aware, if he looks back upon his own history, that he was a theologian in his childhood, a metaphysician in his youth, and a natural philosopher in his manhood. All men who are up to their age can verify this for themselves.

Besides the observation of facts, we have theoretical reasons in support of this law.

The most important of these reasons arises from the necessity that always exists for some theory to which to refer our facts, combined with the clear impossibility that,

at the outset of human knowledge, men could have formed theories out of the observation of facts. All good intellects have repeated, since Bacon's time, that there can be no real knowledge but that which is based on observed facts. This is incontestable, in our present advanced stage; but, if we look back to the primitive stage of human knowledge, we shall see that it must have been otherwise then. If it is true that every theory must be based upon observed facts, it is equally true that facts cannot be observed without the guidance of some theory. Without such guidance, our facts would be desultory and fruitless; we could not retain them: for the most part we could not even perceive them.

Thus, between the necessity of observing facts in order to form a theory, and having a theory in order to observe facts, the human mind would have been entangled in a vicious circle, but for the natural opening afforded by Theological conceptions. This is the fundamental reason for the theological character of the primitive philosophy. This necessity is confirmed by the perfect suitability of the theological philosophy to the earliest researches of the human mind. It is remarkable that the most inaccessible questions,—those of the nature of beings, and the origin and purpose of phenomena,—should be the first to occur in a primitive state, while those which are really within our reach are regarded as almost unworthy of serious study. The reason is evident enough:—that experience alone can teach us the measure of our powers; and if men had not begun by an exaggerated estimate of what they can do, they would never have done all that they are capable of. Our organization requires this. At such a period there could have been no reception of a positive philosophy, whose function is to discover the laws of phenomena, and whose leading characteristic it is to regard as interdicted to human reason those sublime mysteries which

theology explains, even to their minutest details, with the most attractive facility. It is just so under a practical view of the nature of the researches with which men first occupied themselves. Such inquiries offered the powerful charm of unlimited empire over the external world,—a world destined wholly for our use, and involved in every way with our existence. The theological philosophy, presenting this view, administered exactly the stimulus necessary to incite the human mind to the irksome labor without which it could make no progress. We can now scarcely conceive of such a state of things, our reason having become sufficiently mature to enter upon laborious scientific researches, without needing any such stimulus as wrought upon the imaginations of astrologers and alchemists. We have motive enough in the hope of discovering the laws of phenomena, with a view to the confirmation or rejection of a theory. But it could not be so in the earliest days; and it is to the chimeras of astrology and alchemy that we owe the long series of observations and experiments on which our positive science is based. Kepler felt this on behalf of astronomy, and Berthollet on behalf of chemistry. Thus was a spontaneous philosophy, the theological, the only possible beginning, method, and provisional system, out of which the Positive philosophy could grow. It is easy, after this, to perceive how Metaphysical methods and doctrines must have afforded the means of transition from the one to the other.

The human understanding, slow in its advance, could not step at once from the theological into the positive philosophy. The two are so radically opposed, that an intermediate system of conceptions has been necessary to render the transition possible. It is only in doing this, that Metaphysical conceptions have any utility whatever. In contemplating phenomena, men substitute for supernatural direction a corresponding entity. This entity may have

been supposed to be derived from the supernatural action: but it is more easily lost sight of, leaving attention free for the facts themselves, till, at length, metaphysical agents have ceased to be anything more than the abstract names of phenomena. It is not easy to say by what other process than this our minds could have passed from supernatural considerations to natural; from the theological system to the positive. . . .

It cannot be necessary to prove to anybody who reads this work that Ideas govern the world, or throw it into chaos; in other words, that all social mechanism rests upon Opinions. The great political and moral crisis that societies are now undergoing is shown by a rigid analysis to arise out of intellectual anarchy. While stability in fundamental maxims is the first condition of genuine social order, we are suffering under an utter disagreement which may be called universal. Till a certain number of general ideas can be acknowledged as a rallying-point of social doctrine, the nations will remain in a revolutionary state, whatever palliatives may be devised; and their institutions can be only provisional. But whenever the necessary agreement on first principles can be obtained, appropriate institutions will issue from them, without shock or resistance; for the causes of disorder will have been arrested by the mere fact of the agreement. It is in this direction that those must look who desire a natural and regular, a normal state of society.

Now, the existing disorder is abundantly accounted for by the existence, all at once, of three incompatible philosophies,—the theological, the metaphysical, and the positive. Any one of these might alone secure some sort of social order; but while the three coexist, it is impossible for us to understand one another upon any essential point whatever. If this is true, we have only to ascertain which of the philosophies must, in the nature of things, prevail;

and, this ascertained, every man, whatever may have been his former views, cannot but concur in its triumph. The problem once recognized cannot remain long unsolved; for all considerations whatever point to the Positive Philosophy as the one destined to prevail. It alone has been advancing during a course of centuries, throughout which the others have been declining. The fact is incontestable. Some may deplore it, but none can destroy it, nor therefore neglect it but under penalty of being betrayed by illusory speculations. This general revolution of the human mind is nearly accomplished. We have only to complete the Positive Philosophy by bringing Social phenomena within its comprehension, and afterwards consolidating the whole into one body of homogeneous doctrine. The marked preference which almost all minds, from the highest to the commonest, accord to positive knowledge over vague and mystical conceptions, is a pledge of what the reception of this philosophy will be when it has acquired the only quality that it now wants—a character of due generality. When it has become complete, its supremacy will take place spontaneously, and will reëstablish order throughout society. There is, at present, no conflict but between the theological and the metaphysical philosophies. They are contending for the task of reorganizing society; but it is a work too mighty for either of them. The positive philosophy has hitherto intervened only to examine both, and both are abundantly discredited by the process. It is time now to be doing something more effective, without wasting our forces in needless controversy. It is time to complete the vast intellectual operation begun by Bacon, Descartes, and Galileo, by constructing the system of general ideas which must henceforth prevail among the human race. This is the way to put an end to the revolutionary crisis which is tormenting the civilized nations of the world.

CHAPTER XXIX

EPISTEMOLOGY

1. The Motive of Epistemology

Locke's statement of the way in which he was led to undertake the Essay has always been of interest. It is as follows:[1]

Were it fit to trouble thee with the history of this essay, I should tell thee, that five or six friends, meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand, by the difficulties that rose on every side. After we had awhile puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts that we took a wrong course; and that before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and see what objects our understandings were, or were not, fitted to deal with. This I proposed to the company, who all readily assented; and thereupon it was agreed that this should be our first inquiry. Some hasty and undigested thoughts on a subject I had never before considered, which I set down against our next meeting, gave the first entrance into this discourse; which having been thus begun by chance, was continued by intreaty; written by incoherent parcels; and after long intervals of neglect, resumed again, as my humor or occasions permitted; and at last, in a retire-

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[1] Locke, *Essay*, Introduction.

For note on Locke, see p. 223.

ment, where an attendance on my health gave me leisure, it was brought into that order thou now seest it.

2. The Origin of Ideas

Locke's argument that all ideas have their origin in experience is one of the important documents of the "empirical" school: [2]

1. *The way shown how we come by any Knowledge, sufficient to prove it not innate.*—It is an established opinion amongst some men, that there are in the understanding certain innate principles; some primary notions, κοιναὶ ἔννοιαι, characters, as it were, stamped upon the mind of man, which the soul receives in its very first being, and brings into the world with it. It would be sufficient to convince unprejudiced readers of the falseness of this supposition, if I should only show (as I hope I shall in the following parts of this discourse) how men, barely by the use of their natural faculties, may attain to all the knowledge they have, without the help of any innate impressions, and may arrive at certainty, without any such original notions or principles. For I imagine any one will easily grant that it would be impertinent to suppose the ideas of colors innate in a creature to whom God hath given sight, and a power to receive them by the eyes from external objects: and no less unreasonable would it be to attribute several truths to the impressions of nature and innate characters, when we may observe in ourselves faculties fit to attain as easy and certain knowledge of them, as if they were originally imprinted on the mind.

But because a man is not permitted without censure to follow his own thoughts in the search of truth, when they lead him ever so little out of the common road, I shall set down the reasons that made me doubt of the truth of

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[2] Locke, *Essay*, Book I, Ch. ii, 1–9; Ch. iii.

that opinion, as an excuse for my mistake, if I be in one; which I leave to be considered by those who, with me, dispose themselves to embrace truth wherever they find it.

2. *General Assent the great Argument.*—There is nothing more commonly taken for granted than that there are certain principles, both speculative and practical (for they speak of both), universally agreed upon by all mankind, which therefore, they argue, must needs be constant impressions, which the souls of men receive in their first beings, and which they bring into the world with them, as necessarily and really as they do any of their inherent faculties.

3. *Universal Consent proves nothing innate.*—This argument, drawn from universal consent, has this misfortune in it, that if it were true in matter of fact, that there were certain truths wherein all mankind agreed, it would not prove them innate, if there can be any other way shown how men may come to that universal agreement in the things they do consent in, which I presume may be done.

4. *"What is, is," and "it is impossible for the same Thing to be and not to be," not universally assented to.* —But, which is worse, this argument of universal consent, which is made use of to prove innate principles, seems to me a demonstration that there are none such; because there are none to which all mankind give an universal assent. I shall begin with the speculative, and instance in those magnified principles of demonstration, "whatsoever is, is," and "it is impossible for the same thing to be and not to be"; which, of all others, I think have the most allowed title to innate. These have so settled a reputation of maxims universally received, that it will no doubt be thought strange if any one should seem to question it. But yet I take liberty to say, that these propositions are

so far from having an universal assent, that there are a great part of mankind to whom they are not so much as known.

5. *Not on the Mind naturally imprinted, because not known to Children, Idiots, etc.*—For, first, it is evident that all children and idiots have not the least apprehension or thought of them; and the want of that is enough to destroy that universal assent which must needs be the necessary concomitant of all innate truths: it seeming to me near a contradiction to say that there are truths imprinted on the soul which it perceives or understands not; imprinting, if it signify anything, being nothing else but the making certain truths to be perceived. For to imprint anything on the mind without the mind's perceiving it, seems to me hardly intelligible. If therefore children and idiots have souls, have minds, with those impressions upon them, they must unavoidably perceive them, and necessarily know and assent to these truths; which since they do not, it is evident that there are no such impressions. For if they are not notions naturally imprinted, how can they be innate? and if they are notions imprinted, how can they be unknown? To say a notion is imprinted on the mind, and yet at the same time to say that the mind is ignorant of it, and never yet took notice of it, is to make this impression nothing. No proposition can be said to be in the mind which it never yet knew, which it was never yet conscious of. For if any one may, then, by the same reason, all propositions that are true, and the mind is capable of ever assenting to, may be said to be in the mind, and to be imprinted: since, if any one can be said to be in the mind, which it never yet knew, it must be only because it is capable of knowing it, and so the mind is of all truths it ever shall know. Nay, thus truths may be imprinted on the mind which it never did nor ever shall know; for a man may live long, and die at last in

ignorance of many truths which his mind was capable of knowing, and that with certainty. So that if the capacity of knowing be the natural impression contended for, all the truths a man ever comes to know will, by this account, be every one of them innate; and this great point will amount to no more, but only to a very improper way of speaking; which, whilst it pretends to assert the contrary, says nothing different from those who deny innate principles. For nobody, I think, ever denied that the mind was capable of knowing several truths. The capacity, they say, is innate, the knowledge acquired. But then to what end such contest for certain innate maxims? If truths can be imprinted on the understanding without being perceived, I can see no difference there can be between any truths the mind is capable of knowing in respect of their original: they must all be innate or all adventitious; in vain shall a man go about to distinguish them. He therefore that talks of innate notions in the understanding, cannot (if he intend thereby any distinct sort of truths) mean such truths to be in the understanding as it never perceived, and is yet wholly ignorant of. For if these words (to be in the understanding) have any propriety, they signify to be understood; so that to be in the understanding and not to be understood, to be in the mind and never to be perceived, is all one as to say anything is and is not in the mind or understanding. If therefore these two propositions, "Whatsoever is, is," and "it is impossible for the same thing to be and not to be," are by nature imprinted, children cannot be ignorant of them; infants, and all that have souls, must necessarily have them in their understandings, know the truth of them, and assent to it.

6. *That Men know them when they come to the Use of Reason, answered.*—To avoid this, it is usually answered, that all men know and assent to them, when they come to

the use of reason; and this is enough to prove them innate. I answer:—

7. Doubtful expressions, that have scarce any signification, go for clear reasons to those who, being prepossessed, take not the pains to examine even what they themselves say. For, to apply this answer with any tolerable sense to our present purpose, it must signify one of these two things; either that as soon as men come to the use of reason these supposed native inscriptions come to be known and observed by them, or else that the use and exercise of men's reason assists them in the discovery of these principles, and certainly makes them known to them.

8. *If Reason discovered them, that would not prove them innate.*—If they mean, that by the use of reason men may discover these principles, and that this is sufficient to prove them innate; their way of arguing will stand thus, viz., that whatever truths reason can certainly discover to us, and make us firmly assent to, those are all naturally imprinted on the mind; since that universal assent, which is made the mark of them, amounts to no more but this, that by the use of reason we are capable to come to a certain knowledge of and assent to them; and, by this means, there will be no difference between the maxims of the mathematicians, and theorems they deduce from them: all must be equally allowed innate, they being all discoveries made by the use of reason, and truths that a rational creature may certainly come to know, if he apply his thoughts rightly that way.

9. *It is false that Reason discovers them.*—But how can these men think the use of reason necessary to discover principles that are supposed innate, when reason (if we may believe them) is nothing else but the faculty of deducing unknown truths from principles or propositions that are already known? That certainly can never be thought innate which we have need of reason to dis-

cover; unless, as I have said, we will have all the certain truths that reason ever teaches us, to be innate. We may as well think the use of reason necessary to make our eyes discover visible objects, as that there should be need of reason, or the exercise thereof, to make the understanding see what is originally engraven on it, and cannot be in the understanding before it be perceived by it. So that to make reason discover those truths thus imprinted, is to say that the use of reason discovers to a man what he knew before: and if men have those innate impressed truths originally, and before the use of reason, and yet are always ignorant of them till they come to the use of reason, it is in effect to say, that men know and know them not at the same time.

CHAPTER III. NO INNATE PRACTICAL PRINCIPLES

1. *No moral Principles so clear and so generally received as the forementioned speculative Maxims.*—If those speculative maxims, whereof we discoursed in the foregoing chapter, have not an actual universal assent from all mankind, as we there proved, it is much more visible concerning practical principles, that they come short of an universal reception; and I think it will be hard to instance any one moral rule which can pretend to so general and ready an assent as, "What is, is"; or to be so manifest a truth as this, "That it is impossible for the same thing to be and not to be." Whereby it is evident that they are further removed from a title to be innate; and the doubt of their being native impressions on the mind is stronger against those moral principles than the other. Not that it brings their truth at all in question. They are equally true, though not equally evident. Those speculative maxims carry their own evidence with them; but moral principles require reasoning and discourse, and

some exercise of the mind, to discover the certainty of their truth. They lie not open as natural characters engraven on the mind; which, if any such were, they must needs be visible by themselves, and by their own light be certain and known to everybody. But this is no derogation to their truth and certainty, no more than it is to the truth or certainty of the three angles of a triangle being equal to two right ones; because it is not so evident as "the whole is bigger than a part," nor so apt to be assented to at first hearing. It may suffice that these moral rules are capable of demonstration; and therefore it is our own fault if we come not to a certain knowledge of them. But the ignorance wherein many men are of them, and the slowness of assent wherewith others receive them, are manifest proofs that they are not innate, and such as offer themselves to their view without searching.

2. *Faith and Justice not owned as Principles by all Men.*—Whether there be any such moral principles wherein all men do agree, I appeal to any who have been but moderately conversant in the history of mankind, and looked abroad beyond the smoke of their own chimneys. Where is that practical truth that is universally received without doubt or question, as it must be if innate? Justice, and keeping of contracts, is that which most men seem to agree in. This is a principle which is thought to extend itself to the dens of thieves, and the confederacies of the greatest villains; and they who have gone furthest towards the putting off of humanity itself, keep faith and rules of justice one with another. I grant that outlaws themselves do this one amongst another; but it is without receiving these as the innate laws of nature. They practice them as rules of convenience within their own communities: but it is impossible to conceive that he embraces justice as a practical principle, who acts fairly with his fellow-highwayman, and at the same time plunders or kills

the next honest man he meets with. Justice and truth are the common ties of society; and therefore even outlaws and robbers, who break with all the world besides, must keep faith and rules of equity amongst themselves, or else they cannot hold together. But will any one say, that those that live by fraud or rapine have innate principles of truth and justice which they allow and assent to?

3. The a Priori Element in Knowledge

Kant contends, in opposition to the empirical school that there is an element in experience and knowledge whose origin can not be traced to experience. Its existence is presupposed by experience: [3]

There can be no doubt whatever that all our knowledge begins with experience. By what means should the faculty of knowledge be aroused to activity but by objects, which, acting upon our senses, partly of themselves produce ideas in us, and partly set our understanding at work to compare these ideas with one another, and, by combining or separating them, to convert the raw material of our sensible impressions into that knowledge of objects which is called experience? In the order of time, therefore, we have no knowledge prior to experience, and with experience all our knowledge begins.

But, although all our knowledge begins *with* experience, it by no means follows that it all originates *from* experience. For it may well be that experience is itself made up of two elements, one received through impressions of sense, and the other supplied from itself by our faculty of knowledge on occasion of those impressions. If that be so, it may take long practice before our attention is drawn to the element added by the mind, and we learn

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[3] Kant, *Critique of Pure Reason,* Introduction, 1; from Watson, *op. cit.,* pp. 7–10.

For note on Kant, see p. 247.

to distinguish and separate it from the material to which it is applied.

It is, therefore, a question which cannot be lightly put aside, but can be answered only after careful investigation, whether there is any knowledge that is independent of experience, and even of all impressions of sense. Such knowledge is said to be *a priori,* to distinguish it from *empirical* knowledge, which has its sources *a posteriori,* or in experience.

The term *a priori* must, however, be defined more precisely, in order that the full meaning of our question may be understood. We say of a man who undermines the foundations of his house, that he might have known *a priori* that it would fall; by which we mean, that he might have known it would fall, without waiting for the event to take place in his experience. But he could not know it completely *a priori;* for it is only from experience that he could learn that bodies are heavy, and must fall by their own weight when there is nothing to support them.

By *a priori* knowledge we shall, therefore, in what follows understand, not such knowledge as is independent of this or that experience, but such as is *absolutely* independent of all experience. Opposed to it is empirical knowledge, or that which is possible only *a posteriori,* that is, by experience. *A priori* knowledge is *pure,* when it is unmixed with anything empirical. The proposition, for instance, that each change has its own cause is *a priori,* but it is not pure, because change is an idea that can be derived only from experience.

Science and Common Sense contain a priori Knowledge

Evidently what we need is a criterion by which to distinguish with certainty between pure and empirical knowledge. Now, experience can tell us that a thing is so and

so, but not that it cannot be otherwise. Firstly, then, if we find a proposition that, in being thought, is thought as necessary, it is an *a priori* judgment; and if, further, it is not derived from any proposition except which is itself necessary, it is absolutely *a priori*. Secondly, experience never bestows on its judgments true or strict universality, but only the assumed or comparative universality of induction; so that, properly speaking, it merely says, that so far as our observation has gone, there is no exception to this or that rule. If, therefore, a judgment is thought with strict universality, so that there can be no possible exception to it, it is not derived from experience, but is absolutely *a priori*. Necessity and strict universality are, therefore, sure criteria of *a priori* knowledge, and are also inseparably connected with each other.

Now, it is easy to show that in human knowledge there actually are judgments, that in the strictest sense are universal, and therefore pure *a priori*. If an example from the sciences is desired, we have but to think of any proposition in mathematics; if an instance from common sense is preferred, it is enough to cite the proposition, that there can be no change without a cause. To take the latter case, the very idea of cause so manifestly implies the idea of necessary connection with an effect, that it would be completely lost, were we to derive it, with Hume, from the repeated association of one event with another that precedes it, and were we to reduce it to the subjective necessity arising from the habit of passing from one idea to another. Even without appealing to such examples to show that as a matter of fact there are in our knowledge pure *a priori* principles, we might prove *a priori* that without such principles there could be no experience whatever. For, whence could experience derive the certainty it has, if all the rules that it follows were merely empirical and therefore contingent? Surely such

rules could not be dignified with the name of first principles.

There [4] are two ultimate sources from which knowledge comes to us: either we receive ideas in the form of impressions, or, by our spontaneous faculty of conception, we know an object by means of those ideas. In the former case, the object is *given* to us; in the latter case, it is *thought* in relation to the impressions that arise in our consciousness. Perception and conception, therefore, are the two elements that enter into all our knowledge. To every conception some form of perception corresponds, and no perception yields knowledge without conception. Both may be either pure or empirical; *empirical,* if sensation, which occurs only in the actual presence of an object, is implied; *pure,* if there is no intermixture of sensation. We may call sensation the matter of sensuous knowledge. Hence pure perception contains only the form under which a something is perceived, and pure conception the form in which an object in general is thought. Pure perceptions or pure conceptions alone are possible *a priori,* while empirical perceptions or empirical conceptions are possible only *a posteriori.*

If *sensibility* is the *receptivity* of the mind in the actual apprehension of some impression, *understanding* is the *spontaneity* of knowledge, or the faculty that of itself produces ideas. We are so constituted that our *perception* always is sensuous; or it shows merely the manner in which we are affected by objects. But, we have also *understanding,* or the faculty of thinking the object of sensuous perception. Neither of these is to be regarded as superior to the other. Without sensibility no object would be given to us, without understanding none would be thought. Thoughts without content are empty, per-

[4] *Ibid.,* pp. 40, 41.

ceptions without conceptions are blind. It is therefore just as necessary to make our conceptions sensuous, that is, to add the object to them in perceptions, as it is to make our perceptions intelligible, that is, to bring them under conceptions. Neither of these faculties or capacities can do the work of the other. Understanding can perceive nothing, the senses can think nothing. Knowledge arises only from their united action. But this is no reason for confusing the function of either with that of the other; it is rather a strong reason for carefully separating and distinguishing the one from the other.

4. Objective Idealism

Royce was one of the most influential of the recent advocates of Objective Idealism. *The World and the Individual* is a typical expression of his own philosophy and of the Idealistic school of recent years: [5]

Idea and Reality must, then, possess elements that are common to both of them. On the other hand, as we saw, this mere community is wholly inadequate to the tasks of defining what makes the object belong, as object, to a given idea. For, if you view any idea and its supposed object, merely as one might be imagined viewing them from without, it is wholly impossible to determine what degree of correspondence between them is required either to make the reality that precise object sought by the idea, or to render the idea the true representative of the object to which it is said to refer. A true idea, as Spinoza said, must indeed resemble its ideate. But on the other hand, a mere resemblance of idea and ideate is not enough. Nor does the absence of any specific degree of resemblance

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[5] Royce, Josiah, *The World and the Individual*, Vol. I, pp. 350–359 (The Macmillan Company, 1901); reprinted by permission of the publishers, and of Mrs. Royce.

For note on Royce, see p. 509.

necessarily involve an error. It is intended resemblance which counts in estimating the truth of ideas. If in fact you suppose, as an ideal case, two human beings, say twins, absolutely to resemble each other, not only in body, but in experience and in thought, so that every idea which one of these beings at any moment had was precisely duplicated by a thought which at the same instant, and in the same fashion, arose in the other being's life,—if, I say, you suppose this perfect resemblance in the twin minds, you could still, without inconsistency, suppose these twins separated from infancy, living apart, although, of course, under perfectly similar physical conditions, and in our human sense what we men call absolute strangers to each other, so that neither of them, viewed merely as this human being, ever consciously thought of the other, or conceived of the other's existence. In that case, the mere resemblance would not so far constitute the one of these twin minds the object of which the other mind thought, or the being concerning whom the ideas of the other were true.

The resemblance of idea and object, viewed as a mere fact for an external observer, is, therefore, never by itself enough to constitute the truth of the idea. Nor is the absence of any externally predetermined resemblances, such as you from without may choose to demand of the idea, enough to constitute any specific sort of error. Moreover, when you merely assert that in the world of Being there is to be found an object which resembles your idea, you have so far only mentioned two beings, namely, your idea and its object, and have asserted their resemblance. But you have not yet in the least defined wherein the Being of either of these objects consists. This, then, is the outcome so long as you view idea and object as sundered facts agreeing or disagreeing with each other. Neither truth nor Being is thus to be defined. The result so far is conclusive against the adequacy, not only of Realism, and of

Mysticism, but also, as we saw, of even the Third Conception of Being.

For if one asserts, as his second account of the nature of Being, that certain ideas of possibilities of experience are valid, he is so far left with a world of objects upon his hands whose only character, so far as he yet defines the Being of these objects, is that these objects are in agreement with his ideas. Such definition of Being constituted the whole outcome of the Third Conception. The mathematician's ideas, as present to himself, take the form of observed symbols and diagrams. These, so far as they are observed, are contents of experience fulfilling purpose. They so far conform to our definition of what constitutes an idea, for they have internal meaning. But the existent objects concerning which the mathematician endeavors to teach us, are, by hypothesis, not the symbols, and not the diagrams, but valid truths to which these diagrams and symbols—these mathematician's ideas—correspond. The existences of the mathematician's realm are other than his mere finite ideas. Now that such objects have their place in reality, I myself thoroughly believe. But I point out that their reality, the true Being of these objects, is in no wise defined when you merely speak of the ideas as nothing but valid, because the assertion of validity is so far merely the assertion of a correspondence between a presupposed idea and its assumed object, without any account as yet either of the object, or of the truth of the idea. And bare correspondence, the mere possession of common characters in idea and in object not only fails to define, but, as we now see, can never lead us to define, the Being of either idea or object, and in no sense shows or explains to us the relation whereby the idea means, selects, and is in just this way true of just this one object.

The relation of correspondence between idea and object is, therefore, wholly subordinate to another and far deeper

relation; and so to say, "My idea has reference to a real Being," is to say, "My idea imperfectly expresses, in my present consciousness, an intention, a meaning, a purpose; and just this specific meaning is carried out, is fulfilled, is expressed, by my object." For correspondence to its object, and intentional selection of both the object and the sort of correspondence, constitute the two possible relations of idea and object. If the bare correspondence determines neither Being nor truth, the intention must determine both Being and truth. In other words, the Being to whom any idea refers is simply the will of the idea more determinately, and also more completely, expressed. Once admit this definition of the nature of Being, and you will accomplish the end which all the various prior definitions of Being actually sought.

For, first, with the realist, you will now assert that the object is not only Other than the finite idea, but is something that is authoritative over against the finite idea. The realist gave an abstract expression to this authority of the object when he said that the object is independent of the idea. The abstraction was false; but it was already a suggestion of the true meaning. The finite idea does seek its own Other. It consciously means this Other. And it can seek only what it consciously means to seek. But it consciously means to seek precisely that determination of its own will to singleness and finality of expression which shall leave it no Other yet beyond, and still to seek. To its own plan, to its own not here fully determined purpose, the idea at this instant must needs submit. Its very present conscious will is its submission. Yet the idea submits to no external meaning that is not the development of its own internal meaning. Moreover, the finite idea is a merely general idea. But what it means, its object, is an Individual. So you will all agree with the realist that whether or no the idea just now embodies its

own object of search as nearly with present truth as the narrow limits of our consciousness permit, it must still seek other fulfillment than is now present, and must submissively accept this fulfillment as its own authoritative truth. But you will reject the realistic isolation of the idea from the object, and of the object from the idea.

If one attempts in some way to modify his Realism by declaring the object not wholly, but only partially, independent of the ideas which refer to it, still such a modified realist would only the more have to face, as we ourselves have been trying to face, the problem as to how the idea and its object are positively related. And if idea and object are left in the end in any way as two separate existent facts, isolated from each other, then one can find no further relation between the isolated idea and object except the relation of greater or less correspondence, and by this relation of mere external correspondence, taken alone, one would be able to define neither the Being of any object, nor the truth of any idea. Or, in other words, a world where ideas and objects merely correspond, as isolated facts, and where no other and deeper relation links knowledge and Being, is a world where there is so far neither any knowledge nor any Being at all.

But secondly, if you accept our Fourth Conception, you will also agree with Mysticism in so far as, identifying Being with fulfillment of purpose, the mystic says, of the object of any of your ideas: *That art thou.* For the mystic means this assertion not of the imperfect self of the merely finite idea. He does not mean that this passing thrill of longing is already fully identical with the Other that this very longing seeks. For the mystic, as for the realist, Being is indeed something Other than our mere search for Being. The mystical identification of the world and the Self is meant to be true of the completed, of the fulfilled and final, or Absolute Self. Now, starting with

any idea, we shall henceforth say to this idea, regarding its own object, precisely what the mystic says of the Self and the World: *That art thou.* Namely, the object is for us simply the completely embodied will of the idea. It is nothing else. But we shall henceforth differ from the mystic precisely at the point where the mystic takes refuge in mere negations. We, too, of course, shall also confess our finite ignorance. But the *Neti, Neti* of Yâjnavalkya, the *nescio, nescio* of the medieval mystic, will express for us, not the essential nature of true Being, as the mystic declared, but merely the present inadequacy of your passing idea to its own present and conscious purpose,—a purpose known precisely so far as it is embodied at this instant. We shall say if we follow to its conclusion this our Fourth Conception, "We know in part, and we prophesy in part; but when the object meant, namely, precisely when that which is perfect is truly said to be, it fulfills, and in so far by supplementing but not otherwise, it takes away that which is in part." Our final object, the *urbs Sion unica, mansio mystica,* is for us, as for the mystic, the unique Being wherein this our finite will is fulfilled. But this one object meant, this fulfillment of our will, is not merely "founded in heaven." Its will is done on earth, not yet in this temporal instant wholly as it is in heaven, but is still really done, in these ideas that already consciously attain a fragment of their own meaning. They are ideas precisely because they do this. The sadness of the mystical longing is now for us lighted by glimpses of the genuine and eternally present truth of the one real world. It is not merely in the mystic trance, but in every rational idea, in so far as it is already a partially embodied purpose, that we now shall in our own way and measure come upon that which is, and catch the deep pulsations of the world. Our instant is not yet the whole of eternity; but the eternal light, the *lux eterna,* shineth in our every

reasonable moment, and lighteth every idea that cometh into the world.

And, thirdly, if you follow our Fourth Conception, you will now agree with the critical rationalist when he asserts that Being essentially involves what gives the validity to ideas. But you will have discovered what conditions are necessary to constitute validity. The valid finite idea is first, for whoever possess it, an observed and empirical fulfillment of purpose. But this fulfillment is also observed in this instant as something incomplete. Therefore it is that a finite idea seeks beyond itself for its own validity. And it is perfectly true to say that if the idea is valid, certain further experience of the fulfillment of the idea is possible. Leave this further experience, however, as something merely possible, and your definition of Being would so far remain fast bound in its own fatal circle. Is the idea valid or not? If it is valid, then, by hypothesis, further experience that would confirm the idea is possible. This further experience, like any object existent in the mathematician's realm, is both known to be something Other than the idea that refers to it, and is also viewed as a fact precisely corresponding to what the idea means to define. Now so long as you call this Other, this possible experience, merely such a bare possibility, you define, as we have said, only those characters of this object which the object has in common with your merely present idea of the object. The object is so far defined as an experience, and as having this or that type or form. That is what you say when you talk of any being in Kant's realm of *Mögliche Erfahrung,* or of any mathematical fact. All that is thus defined about the object is its mere *what,* the characters that it shares with your present ideas and experiences at the moment when you define it. What therefore you have *not* thus defined is precisely the Being of the Object as Other than the very finite idea which is to

regard it as an Other. If you have once observed this defect of any assertion of a bare possibility of experience you will have seen why the mere definition of universal types can never reach the expression of the whole nature of real Beings, and why, for that very reason, the realm of Validity is nothing unless it is more than merely valid, nothing too unless it takes an individual form as an unique fulfillment of purpose in a completed life.

But all the three former conceptions are now to be brought into synthesis in this Fourth Conception. What is, is authoritative over against finite ideas, as Realism asserted, is one with the true meaning of the idea, as Mysticism insisted, and is valid as Critical Rationalism demanded. What is, presents the fulfillment of the whole purpose of the very idea that now seeks this Being. And when I announce this as our Fourth Conception of Being, I do not mean to be understood as asserting a mere validity, but as reporting facts. I do not any longer merely say, as we said at the outset of our discussion, Being is that which, if present, would end your finite search, would answer your doubts, would fulfill your purpose. All that was the language of validity. It was a mere preliminary. Since validity has no meaning unless its general types of truth take on individual form, and unless the *what* turns into the *that*, I now say, without any reserve, What is does in itself fulfill your meaning, does express, in the completest logically possible measure, the accomplishment and embodiment of the very will now fragmentarily embodied in your finite ideas. And I say, that this embodiment means in itself precisely what your present embodiment of purpose in your rational experience means, just in so far as your purposes are not mere fragments, but are also, even in their transiency, results known as, relatively speaking, won, as possessed, as accomplished. The accomplishment of your purpose now means that your experience is

viewed by you as the present and conscious expression of a plan. Well, what is, precisely in so far as it is, is in the same way a whole experience finally expressing and consciously fulfilling a plan. And the Being of the real object of which you now think means a life that expresses the fulfillment of just your present plan, in the greatest measure in which your plan itself is logically capable of fulfillment.

CHAPTER XXX

THE CRITERIA OF TRUTH

1. The Copy Theory

This theory which has been strongly criticized by the Pragmatists has its classic expression in the following passage from Locke's *Essay*:[1]

OF THE EXTENT OF HUMAN KNOWLEDGE

1. Knowledge, as has been said, lying in the perception of the agreement or disagreement of any of our ideas, it follows from hence that,

I. *No further than we have Ideas.*—First, We can have knowledge no further than we have ideas.

2. II. *No further than we can perceive their Agreement or Disagreement.*—Secondly, That we have no knowledge further than we can have perception of their agreement or disagreement. Which perception being: 1. Either by intuition, or the immediate comparing any two ideas; or, 2. By reason, examining the agreement or disagreement of two ideas, by the intervention of some others; or, 3. By sensation, perceiving the existence of particular things; hence it also follows:

3. III. *Intuitive Knowledge extends itself not to all the Relations of all our Ideas.*—Thirdly, That we cannot have an intuitive knowledge that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have

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[1] Locke, *Essay*, Book IV, Ch. iii.

one to another by juxtaposition, or an immediate comparison one with another. Thus, having the ideas of an obtuse and an acute-angled triangle, both drawn from equal bases, and between parallels, I can, by intuitive knowledge, perceive the one not to be the other, but cannot that way know whether they be equal or no; because their agreement or disagreement in equality can never be perceived by an immediate comparing them: the difference of figure makes their parts incapable of an exact immediate application, and therefore there is need of some intervening qualities to measure them by, which is demonstration or rational knowledge.

4. IV. *Nor demonstrative Knowledge.* — Fourthly, It follows, also, from what is above observed, that our rational knowledge cannot reach to the whole extent of our ideas; because between two different ideas we would examine, we cannot always find such mediums as we can connect one to another with an intuitive knowledge in all the parts of the deduction; and wherever that fails, we come short of knowledge and demonstration.

5. V. *Sensitive Knowledge narrower than either.*— Fifthly, Sensitive knowledge, reaching no further than the existence of things actually present to our senses, is yet much narrower than either of the former.

6. VI. *Our Knowledge, therefore, narrower than our Ideas.*—From all which it is evident, that the extent of our knowledge comes not only short of the reality of things, but even of the extent of our own ideas. Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection; and though these be very narrow bounds, in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings, not tied down to the dull and narrow information that is to be received from some few, and not very acute ways of perception, such as are

our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world, resolved. Nevertheless, I do not question but that human knowledge, under the present circumstances of our beings and constitutions, may be carried much farther than it hitherto has been, if men would sincerely, and with freedom of mind, employ all that industry and labor of thought in improving the means of discovering truth, which they do for the coloring or support of falsehood, to maintain a system, interest, or party they are once engaged in.

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7. *How far our Knowledge reaches.*—The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz., identity, coexistence, relation, and real existence. I shall examine how far our knowledge extends in each of these:—

8. I. *Our Knowledge of Identity and Diversity, as far as our Ideas.*—First, as to identity and diversity, in this way of agreement or disagreement of ideas, our intuitive knowledge is as far extended as our ideas themselves; and there can be no idea in the mind, which it does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other.

9. II. *Of Coexistence, a very little Way.*—Secondly, as to the second sort, which is the agreement or disagreement of our ideas in coexistence, in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so coexisting together;—*v. g.*,

our idea of flame is a body hot, luminous, and moving upward; of gold, a body heavy to a certain degree, yellow, malleable, and fusible; these, or some such complex ideas as these, in men's minds, do these two names of the different substances, flame and gold, stand for. When we would know any thing further concerning these, or any other sort of substances, what do we inquire, but what other qualities or powers these substances have or have not? Which is nothing else but to know what other simple ideas do or do not coexist with those that make up that complex idea. . . .

18. III. *Of other Relations it is not easy to say how far.* —Thirdly, as to the third sort of our knowledge, viz., the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend; because the advances that are made in this part of knowledge depending on our sagacity in finding intermediate ideas, that may show the relations and habitudes of ideas, whose coexistence is not considered, it is a hard matter to tell when we are at an end of such discoveries; and when reason has all the helps it is capable of, for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra, cannot imagine the wonders in this kind to be done by it: and what further improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of quantity are not those alone that are capable of demonstration and knowledge; and that other, and perhaps more useful parts of contemplation would afford us certainty, if vices, passions, and domineering interest did not oppose or menace such endeavors. . . .

21. *Fourthly. Of real Existence: we have an intuitive Knowledge of our own—demonstrative of God's,—sensi-*

tive, of some few other things.—As to the fourth sort of our knowledge, viz., of the real actual existence of things, we have an intuitive knowledge of our own existence, and a demonstrative knowledge of the existence of a God; of the existence of anything else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.

CHAPTER IV. OF THE REALITY OF KNOWLEDGE

1. *Objection. Knowledge placed in Ideas may be all bare Vision.*—I doubt not but my reader, by this time, may be apt to think that I have been all this while only building a castle in the air; and be ready to say to me, "To what purpose all this stir? Knowledge, say you, is only the perception of the agreement or disagreement of our own ideas; but who knows what those ideas may be? Is there any thing so extravagant as the imaginations of men's brains? Where is the head that has no chimeras in it? Or if there be a sober and a wise man, what difference will there be, by your rules, between his knowledge and that of the most extravagant fancy in the world? They both have their ideas, and perceive their agreement and disagreement one with another. If there be any difference between them, the advantage will be on the warm-headed man's side, as having the more ideas, and the more lively; and so, by your rules, he will be the more knowing. If it be true, that all knowledge lies only in the perception of the agreement or disagreement of our own ideas, the visions of an enthusiast and the reasonings of a sober man will be equally certain. It is no matter how things are; so a man observe but the agreement of his own imaginations, and talk conformably, it is all truth, all certainty. Such castles in the air will be as strongholds of truth, as the demonstrations of Euclid. That an harpy is not a cen-

taur is by this way as certain knowledge, and as much a truth, as that a square is not a circle.

"But of what use is all this fine knowledge of men's own imaginations, to a man that inquires after the reality of things? It matters not what men's fancies are, it is the knowledge of things that is only to be prized; it is this alone gives a value to our reasonings, and preference to one man's knowledge over another's, that it is of things as they really are, and not of dreams and fancies."

2. *Answer. Not so, where Ideas agree with Things.*—To which I answer, that if our knowledge of our ideas terminate in them, and reach no further, where there is something further intended, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight than the discourses of a man, who sees things clearly in a dream, and with great assurance utters them. But I hope, before I have done, to make it evident that this way of certainty, by the knowledge of our own ideas, goes a little further than bare imagination; and I believe it will appear that all the certainty of general truths a man has lies in nothing else.

3. It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge therefore is real only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet I think there be two sorts of ideas that we may be assured agree with things.

4. As, I. *All simple Ideas do.*—First, the first are simple ideas, which since the mind, as has been showed, can by no means make to itself, must necessarily be the product of things operating on the mind in a natural way,

and producing therein those perceptions which by the wisdom and will of our Maker they are ordained and adapted to. From whence it follows, that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us, really operating upon us, and so carry with them all the conformity which is intended, or which our state requires; for they represent to us things under those appearances which they are fitted to produce in us, whereby we are enabled to distinguish the sorts of particular substances, to discern the states they are in, and so to take them for our necessities, and apply them to our uses. Thus the idea of whiteness or bitterness, as it is in the mind, exactly answering that power which is in any body to produce it there, has all the real conformity it can or ought to have, with things without us. And this conformity between our simple ideas and the existence of things, is sufficient for real knowledge.

5. II. *All complex Ideas except of Substances.*—Secondly, all our complex ideas, except those of substances, being archetypes of the mind's own making, not intended to be the copies of any thing, nor referred to the existence of any thing, as to their originals, cannot want any conformity necessary to real knowledge. For that which is not designed to represent any thing but itself, can never be capable of a wrong representation, nor mislead us from the true apprehension of any thing by its dislikeness to it; and such, excepting those of substances, are all our complex ideas, which, as I have showed in another place, are combinations of ideas which the mind, by its free choice, puts together, without considering any connection they have in nature. And hence it is, that in all these sorts the ideas themselves are considered as the archetypes, and things not otherwise regarded, but as they are conformable to them. So that we cannot but be infallibly certain, that all the knowledge we attain concerning these

ideas is real, and reaches things themselves; because in all our thoughts, reasonings, and discourses of this kind, we intend things no further than as they are conformable to our ideas. So that in these we cannot miss of a certain and undoubted reality.

6. *Hence the Reality of Mathematical Knowledge.*—I doubt not but it will be easily granted, that the knowledge we have of mathematical truths is not only certain, but real knowledge; and not the bare empty vision of vain, insignificant chimeras of the brain; and yet, if we will consider, we shall find that it is only of our own ideas. The mathematician considers the truth and properties belonging to a rectangle or circle, only as they are in idea in his own mind. For it is possible he never found either of them existing mathematically, *i. e.,* precisely true, in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any mathematical figure, are nevertheless true and certain, even of real things existing; because real things are no further concerned, nor intended to be meant by any such propositions, than as things really agree to those archetypes in his mind. Is it true of the idea of a triangle, that its three angles are equal to two right ones? It is true also of a triangle, wherever it really exists. Whatever other figure exists, that is not exactly answerable to that idea of a triangle in his mind, is not at all concerned in that proposition; and therefore he is certain all his knowledge concerning such ideas is real knowledge; because, intending things no further than they agree with those his ideas, he is sure what he knows concerning those figures, when they have barely an ideal existence in his mind, will hold true of them also when they have a real existence in matter; his consideration being barely of those figures which are the same, wherever or however they exist.

7. *And of Moral.*—And hence it follows that moral

knowledge is as capable of real certainty as mathematics; for certainty being but the perception of the agreement or disagreement of our ideas, and demonstration nothing but the perception of such agreement, by the intervention of other ideas or mediums; our moral ideas, as well as mathematical, being archetypes themselves, and so adequate and complete ideas, all the agreement or disagreement which we shall find in them will produce real knowledge, as well as in mathematical figures. . . .

11. *Ideas of Substances have their Archetypes without us.*—Thirdly, there is another sort of complex ideas, which, being referred to archetypes without us, may differ from them, and so our knowledge about them may come short of being real. Such are our ideas of substances, which, consisting of a collection of simple ideas, supposed taken from the works of nature, may yet vary from them, by having more or different ideas united in them, than are to be found united in the things themselves. From whence it comes to pass, that they may, and often do fail of being exactly conformable to things themselves.

12. *So far as they agree with those, so far our Knowledge concerning them is real.*—I say, then, that to have ideas of substances which, by being conformable to things, may afford us real knowledge, it is not enough, as in modes, to put together such ideas as have no inconsistence, though they did never before so exist; *v. g.*, the ideas of sacrilege or perjury, etc., were as real and true ideas before, as after the existence of any such fact. But our ideas of substances being supposed copies, and referred to archetypes without us, must still be taken from something that does or has existed; they must not consist of ideas put together at the pleasure of our thoughts, without any real pattern they were taken from, though we can perceive no inconsistence in such a combination. The reason whereof is, because we, knowing not what real constitution it is of

substances whereon our simple ideas depend, and which really is the cause of the strict union of some of them one with another, and the exclusion of others; there are very few of them that we can be sure are or are not inconsistent in nature, any further than experience and sensible observation reach. Herein, therefore, is founded the reality of our knowledge concerning substances, that all our complex ideas of them must be such, and such only, as are made up of such simple ones as have been discovered to coexist in nature. And our ideas being thus true, though not, perhaps, very exact copies, are yet the subject of real (as far as we have any) knowledge of them; which (as has been already shown) will not be found to reach very far; but so far as it does, it will still be real knowledge. Whatever ideas we have, the agreement we find they have with others will still be knowledge. If those ideas be abstract, it will be general knowledge. But to make it real concerning substances, the ideas must be taken from the real existence of things. Whatever simple ideas have been found to coexist in any substance, these we may with confidence join together again, and so make abstract ideas of substances. For whatever have once had an union in nature, may be united again.

2. The Pragmatist Idea of Truth

One of the best-known statements of this position is the following of Professor James:[2]

Truth, as any dictionary will tell you, is a property of certain of our ideas. It means their "agreement," as falsity means their disagreement, with "reality." Pragmatists and intellectualists both accept this definition as a matter of course. They begin to quarrel only after the

2 James, William, *Pragmatism*, pp. 198–205 (Longmans, Green and Company, 1907); reprinted by permission of the publishers.
For note on James, see p. 298.

question is raised as to what may precisely be meant by the term "agreement," and what by the term "reality," when reality is taken as something for our ideas to agree with.

In answering these questions the pragmatists are more analytic and painstaking, the intellectualists more offhand and irreflective. The popular notion is that a true idea must copy its reality. Like other popular views, this one follows the analogy of the most usual experience. Our true ideas of sensible things do indeed copy them. Shut your eyes and think of yonder clock on the wall, and you get just such a true picture or copy of its dial. But your idea of its "works" (unless you are a clockmaker) is much less of a copy, yet it passes muster, for it in no way clashes with the reality. Even though it should shrink to the mere word "works," that word still serves you truly; and when you speak of the "time-keeping function" of the clock, or of its spring's "elasticity," it is hard to see exactly what your ideas can copy.

You perceive that there is a problem here. Where our ideas cannot copy definitely their object, what does agreement with that object mean? Some idealists seem to say that they are true whenever they are what God means that we ought to think about that object. Others hold the copy-view all through, and speak as if our ideas possessed truth just in proportion as they approach to being copies of the Absolute's eternal way of thinking.

These views, you see, invite pragmatistic discussion. But the great assumption of the intellectualists is that truth means essentially an inert static relation. When you've got your true idea of anything, there's an end of the matter. You're in possession; you *know;* you have fulfilled your thinking destiny. You are where you ought to be mentally; you have obeyed your categorical imperative; and nothing more need follow on that climax of your

rational destiny. Epistemologically you are in stable equilibrium.

Pragmatism, on the other hand, asks its usual question. "Grant an idea or belief to be true," it says, "what concrete difference will its being true make in any one's actual life? How will the truth be realized? What experiences will be different from those which would obtain if the belief were false? What, in short, is the truth's cash-value in experiential terms?"

The moment pragmatism asks this question, it sees the answer: *True ideas are those that we can assimilate, validate, corroborate and verify. False ideas are those that we can not.* That is the practical difference it makes to us to have true ideas; that, therefore, is the meaning of truth, for it is all that truth is known as.

This thesis is what I have to defend. The truth of an idea is not a stagnant property inherent in it. Truth *happens* to an idea. It *becomes* true, is *made* true by events. Its verity *is* in fact an event, a process: the process namely of its verifying itself, its veri-*fication.* Its validity is the process of its valid-*ation.*

But what do the words verification and validation themselves pragmatically mean? They again signify certain practical consequences of the verified and validated idea. It is hard to find any one phrase that characterizes these consequences better than the ordinary agreement-formula —just such consequences being what we have in mind whenever we say that our ideas "agree" with reality. They lead us, namely, through the acts and other ideas which they instigate, into or up to, or towards, other parts of experience with which we feel all the while—such feeling being among our potentialities—that the original ideas remain in agreement. The connections and transitions come to us from point to point as being progressive, harmonious, satisfactory. This function of agreeable lead-

ing is what we mean by an idea's verification. Such an account is vague and it sounds at first quite trivial, but it has results which it will take the rest of my hour to explain.

Let me begin by reminding you of the fact that the possession of true thoughts means everywhere the possession of invaluable instruments of action; and that our duty to gain truth, so far from being a blank command from out of the blue, or a "stunt" self-imposed by our intellect, can account for itself by excellent practical reasons.

The importance to human life of having true beliefs about matters of fact is a thing too notorious. We live in a world of realities that can be infinitely useful or infinitely harmful. Ideas that tell us which of them to expect count as the true ideas in all this primary sphere of verification, and the pursuit of such ideas is a primary human duty. The possession of truth, so far from being here an end in itself, is only a preliminary means toward other vital satisfactions. If I am lost in the woods and starved, and find what looks like a cow path, it is of the utmost importance that I should think of a human habitation at the end of it, for if I do so and follow it, I save myself. The true thought is useful here because the house which is its object is useful. The practical value of true ideas is thus primarily derived from the practical importance of their objects to us. Their objects are, indeed, not important at all times. I may on another occasion have no use for the house; and then my idea of it, however verifiable, will be practically irrelevant, and had better remain latent. Yet since almost any object may some day become temporarily important, the advantage of having a general stock of *extra* truths, of ideas that shall be true of merely possible situations, is obvious. We store such

extra truths away in our memories, and with the overflow we fill our books of reference. Whenever such an extra truth becomes practically relevant to one of our emergencies, it passes from cold storage to do work in the world and our belief in it grows active. You can say of it then either that "it is useful because it is true" or that "it is true because it is useful." Both these phrases mean exactly the same thing, namely that here is an idea that gets fulfilled and can be verified. True is the name for whatever idea starts the verification process, useful is the name for its completed function in experience. True ideas would never have been singled out as such, would never have acquired a class-name, least of all a name suggesting value, unless they had been useful from the outset in this way.

From this simple cue pragmatism gets her general notion of truth as something essentially bound up with the way in which one moment in our experience may lead us towards other moments which it will be worth while to have been led to. Primarily, and on the common sense level, the truth of a state of mind means this function of *a leading that is worth while.* When a moment in our experience, of any kind whatever, inspires us with a thought that is true, that means that sooner or later we dip by that thought's guidance into the particulars of experience again and make advantageous connection with them. This is a vague enough statement, but I beg you to retain it, for it is essential.

"The[3] *true," to put it very briefly, is only the expedient in the way of our thinking, just as "the right" is only the expedient in the way of our behaving.* Expedient in almost any fashion; and expedient in the long run and on

[3] *Ibid.*, pp. 222–226.

the whole of course; for what meets expediently all the experience in sight won't necessarily meet all farther experiences equally satisfactorily. Experience, as we know, has ways of *boiling over*, and making us correct our present formulas.

The "absolutely" true, meaning what no farther experience will ever alter, is that ideal vanishing-point towards which we imagine that all our temporary truths will some day converge. It runs on all fours with the perfectly wise man, and with the absolutely complete experience; and, if these ideals are ever realized, they will all be realized together. Meanwhile we have to live to-day by what truth we can get to-day, and be ready to-morrow to call it falsehood. Ptolemaic astronomy, euclidean space, aristotelian logic, scholastic metaphysics, were expedient for centuries, but human experience has boiled over those limits, and we now call these things only relatively true, or true within those borders of experience. "Absolutely" they are false; for we know that those limits were casual, and might have been transcended by past theorists just as they are by present thinkers.

When new experiences lead to retrospective judgments, using the past tense, what these judgments utter *was* true, even though no past thinker had been led there. We live forwards, a Danish thinker has said, but we understand backwards. The present sheds a backward light on the world's previous processes. They may have been truth-processes for the actors in them. They are not so for one who knows the later revelations of the story.

This regulative notion of a potential better truth to be established later, possibly to be established some day absolutely, and having powers of retroactive legislation, turns its face, like all pragmatist notions, towards concreteness of fact, and towards the future. Like the half-truths, the absolute truth will have to be *made*, made as

a relation incidental to the growth of a mass of verification-experience, to which the half true ideas are all along contributing their quota.

I have already insisted on the fact that truth is made largely out of previous truths. Men's beliefs at any time are so much experience *funded*. But the beliefs are themselves parts of the sum total of the world's experience, and become matter, therefore, for the next day's funding operations. So far as reality means experienceable reality, both it and the truths men gain about it are everlastingly in process of mutation—mutation towards a definite goal —it may be—but still mutation.

Mathematicians can solve problems with two variables. On the Newtonian theory, for instance, acceleration varies with distance, but distance also varies with acceleration. In the realm of truth-processes facts come independently and determine our beliefs provisionally. But these beliefs make us act, and as fast as they do so, they bring into sight or into existence new facts which re-determine the beliefs accordingly. So the whole coil and ball of truth, as it rolls up, is the product of a double influence. Truths emerge from facts; but they dip forward into facts again and add to them; which facts again create or reveal new truth (the word is indifferent) and so on indefinitely. The "facts" themselves meanwhile are not *true*. They simply *are*. Truth is the function of the beliefs that start and terminate among them.

The case is like a snowball's growth, due as it is to the distribution of the snow on the one hand, and to the successive pushes of the boys on the other, with these factors co-determining each other incessantly.

3. Absolutism

The conviction that recent work in logic and mathematics leads toward an absolute ideal of truth is formulated in the essay from which the following is taken: [4]

In any case, the new logic, and the new mathematics, are making us acquainted with absolute truth, and are giving to our knowledge of this truth a clearness never before accessible to human thinking. And yet the new logic is doing all this in a way that to my mind is in no wise a justification of the intellectualism which modern instrumentalists condemn. For what we thereby learn is that all truth is indeed relative to the expression of our will, but that the will inevitably determines for itself forms of activity which are objectively valid and absolute, just because to attempt to inhibit these forms is once more to act, and is to act in accordance with them. These forms are the categories both of our thought and of our action. We recognize them equally whether we consider, as in ethics, the nature of reasonable conduct, or, as in logic, the forms of conceptional construction, or, as in mathematics, the ideal types of objects that we can define by constructing, as freely as possible, in conformity with these forms. When we turn back to the world of experience, we inevitably conceive the objects of experience in terms of our categories. Hence the unity and the trans-individual character which rightly we assign to the objects of experience. What we know about these objects is always relative to our human needs and activities. But all of this relative knowledge is—however provisionally—defined in terms of absolute principles. And that is why the scientific spirit and the scientific conscience are indeed

[4] Royce, *William Jones and Other Essays*, pp. 249–254 (The Macmillian Company, 1911); used by permission of the publishers and Mrs. Royce.

On Royce, see p. 509.

the expression of motives, which you can never reduce to mere instrumentalism, and can never express in terms of any individualism. And that is why, wherever two or three are gathered together in any serious moral or scientific enterprise, they believe in a truth which is far more than the mere working of any man's ephemeral assertions.

In sum, an absolute truth is one whose denial implies the reassertion of that same truth. To us men, such truths are accessible only in the realm of our knowledge of the forms that predetermine all of our concrete activities. Such knowledge we can obtain regarding the categories of pure logic and also regarding the constructions of pure mathematics. In dealing, on the other hand, with the concrete objects of experience, we are what the instrumentalists suppose us to be, namely, seekers for a successful control over this experience. And as the voluntarists also correctly emphasize, in all our empirical constructions, scientific and practical, we express our own individual wills and seek such success as we can get. But there remains the fact that in all these constructions we are expressing a will which, as logic and pure mathematics teach us, has an universal absolute nature,—the same in all of us. And it is for the sake of winning some adequate expression of this our absolute nature, that we are constantly striving in our empirical world for a success which we never can obtain at any instant, and can never adequately define in any merely relative terms. The result appears in our ethical search for absolute standards, and in our metaphysical thirst for an absolute interpretation of the universe,—a thirst as unquenchable as the over-individual will that expresses itself through all our individual activities is itself world-wide, active, and in its essence absolute.

In recognizing that all truth is relative to the will, the three motives of the modern theories of truth are at one.

To my mind they, therefore, need not remain opposed motives. Let us observe their deeper harmony, and bring them into synthesis. And then what I have called the trivialities of mere instrumentalism will appear as what they are,—fragmentary hints, and transient expressions, of that will whose life is universal, whose form is absolute, and whose laws are at once those of logic, of ethics, of the unity of experience, and of whatever gives sense to life.

Tennyson, in a well-known passage of his "In Memoriam," cries:

> "Oh living Will that shalt endure
> When all that seems shall suffer shock,
> Rise in the spiritual rock,
> Flow through our deeds and make them pure."

That cry of the poet was an expression of moral and religious sentiment and aspiration; but he might have said essentially the same thing if he had chosen the form of praying: Make our deeds logical. Give our thoughts sense and unity. Give our Instrumentalism some serious unity of eternal purpose. Make our Pragmatism more than the mere passing froth of waves that break upon the beach of triviality. In any case, the poet's cry is an expression of that Absolute Pragmatism, of that Voluntarism, which recognizes all truth as the essentially eternal creation of the Will. What the poet utters is that form of Idealism which seems to me to be indicated as the common outcome of all the three motives that underlie the modern theory of truth.

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